

IDAHO DEPARTMENT OF FISH AND GAME

Rod Sando, Director

FEDERAL AID IN FISH RESTORATION 2000 JOB PERFORMANCE REPORT PROGRAM F-71-R-25



REGIONAL FISHERIES MANAGEMENT INVESTIGATIONS SALMON REGION (Subprojects I-H-II-H)

PROJECT I. SURVEYS AND INVENTORIES

- Job a¹. Salmon Region Mountain Lake Investigations – Stocking
- Job a². Salmon Region Mountain Lake Investigations – Carlson Lake Population Control
- Job a³. Salmon Region Mountain Lakes Investigations
- Job b¹. Salmon Region Lowland Lake Investigations – Mosquito Flats Reservoir
- Job b². Salmon Region Lowland Lake Investigations – Williams Lake
- Job b³. Salmon Region Lowland Lake Investigations – Alturas Lake
- Job c¹. Salmon Region Rivers and Streams Investigations – Wild Trout Population Surveys – Big Springs Creek
- Job c². Salmon Region Rivers and Streams Investigations – Wild Trout Population Surveys – Upper Salmon River Tributary Investigations
- Job c³. Salmon Region Rivers and Streams Investigations – Valley Creek Brook Trout Reduction
- Job c⁴. Salmon Region Rivers and Streams Investigations – Lemhi River Monitoring Project

PROJECT II. TECHNICAL GUIDANCE

By

Mike Larkin, Regional Fishery Manager
Arnie Brimmer, Regional Fishery Biologist
Tom Curet, Regional Fishery Biologist
Rebecca M. Andersen, Regional Fishery Technician

November 2001
IDFG 01-42

TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| <u>Surveys and Inventories - Salmon Region Mountain Lake Investigations - Stocking</u> | |
| ABSTRACT | 1 |
| OBJECTIVES | 2 |
| METHODS..... | 2 |
| RESULTS..... | 2 |

LIST OF TABLES

| | | |
|----------|--|---|
| Table 1. | Salmon Region high mountain (alpine) lakes stocked during the summer of 2000. Unless otherwise stated, all fish were stocked by Sawtooth Fish Hatchery personnel | 4 |
|----------|--|---|

Surveys and Inventories - Salmon Region Mountain Lake Investigations- Carlson Lake Population Control

| | |
|---|----|
| ABSTRACT | 6 |
| INTRODUCTION | 7 |
| OBJECTIVES | 7 |
| METHODS..... | 7 |
| RESULTS..... | 8 |
| DISCUSSION | 8 |
| LITERATURE CITED..... | 12 |
| APPENDICES..... | 13 |
| Appendix A. Carlson Lake stocking record | 14 |
| Appendix B. Results of Carlson Lake Population Procedures in 2000, including net number, net type, time of deployment and removal, diel net hours of all nets, and total number of fish per net | 15 |

TABLE OF CONTENTS (Continued)

Page

LIST OF TABLES

| | | |
|----------|---|---|
| Table 1. | Comparison of eastern brook trout lengths and gill netting efforts in Carlson Lake, Idaho, 1992-2000..... | 9 |
|----------|---|---|

LIST OF FIGURES

| | | |
|-----------|--|----|
| Figure 1. | Length frequency histograms for brook trout in Carlson Lake during specified years, 1981-1999. In 1981 a mean length is not available as brook trout were measured by 10 mm length classes and no individual lengths were taken..... | 10 |
|-----------|--|----|

Surveys and Inventories - Salmon Region Mountain Lakes Investigations

| | |
|-----------------------------|----|
| ABSTRACT | 16 |
| OBJECTIVES | 17 |
| METHODS..... | 17 |
| RESULTS AND DISCUSSION..... | 17 |

LIST OF TABLES

| | | |
|-----------|--|----|
| Table 1. | Alpine Lake survey data for Alpine Cr. L #14 | 18 |
| Table 2. | Alpine Lake survey data for Alpine L..... | 19 |
| Table 3. | Alpine Lake survey data for Alpine L #A | 20 |
| Table 4. | Alpine Lake survey data for Alpine L #B | 21 |
| Table 5. | Alpine Lake survey data for Alpine L #C | 22 |
| Table 6. | Alpine Lake survey data for Basin Cr. L #5 | 23 |
| Table 7. | Alpine Lake survey data for Bear Valley #3..... | 24 |
| Table 8. | Alpine Lake survey data for Bear Valley L #1..... | 25 |
| Table 9. | Alpine Lake survey data for Bear Valley L #2..... | 26 |
| Table 10. | Alpine Lake survey data for Bench L #1..... | 27 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|---|-------------|
| Table 11. Alpine Lake survey data for Bench L #2..... | 28 |
| Table 12. Alpine Lake survey data for Bench L #3..... | 29 |
| Table 13. Alpine Lake survey data for Bench L #4..... | 30 |
| Table 14. Alpine Lake survey data for Bench L #5..... | 31 |
| Table 15. Alpine Lake survey data for Bench L #6..... | 32 |
| Table 16. Alpine Lake survey data for Bench L #6A | 33 |
| Table 17. Alpine Lake survey data for Bench L #6B | 34 |
| Table 18. Alpine Lake survey data for Bench L #6E | 35 |
| Table 19. Alpine Lake survey data for Bench L #6F. | 36 |
| Table 20. Alpine Lake survey data for Big Frog L. | 37 |
| Table 21. Alpine Lake survey data for Big Frog L #A..... | 38 |
| Table 22. Alpine Lake survey data for Buck L #1..... | 39 |
| Table 23. Alpine Lake survey data for Buck L #1A | 40 |
| Table 24. Alpine Lake survey data for Buck L #2..... | 41 |
| Table 25. Alpine Lake survey data for Buck L #3..... | 42 |
| Table 26. Alpine Lake survey data for Buck L #4..... | 43 |
| Table 27. Alpine Lake survey data for Buck L #4A | 44 |
| Table 28. Alpine Lake survey data for Buck L #4B | 45 |
| Table 29. Alpine Lake survey data for Cabin Cr. L #1..... | 46 |
| Table 30. Alpine Lake survey data for Cabin Cr. L #1A | 47 |
| Table 31. Alpine Lake survey data for Cabin Cr. L #3..... | 48 |
| Table 32. Alpine Lake survey data for Cabin Cr. L #4..... | 49 |
| Table 33. Alpine Lake survey data for Cabin Cr. L #5..... | 50 |

TABLE OF CONTENTS (Continued)

| | | <u>Page</u> |
|-----------|--|-------------|
| Table 34. | Alpine Lake survey data for Cabin Cr. L #6..... | 51 |
| Table 35. | Alpine Lake survey data for Cabin Cr. L #7..... | 52 |
| Table 36. | Alpine Lake survey data for Cabin Cr. L #7A..... | 53 |
| Table 37. | Alpine Lake survey data for Cabin Cr. Peak L #1..... | 54 |
| Table 38. | Alpine Lake survey data for Cabin Cr. Peak L #2..... | 55 |
| Table 39. | Alpine Lake survey data for Cabin Cr. Peak L #3..... | 56 |
| Table 40. | Alpine Lake survey data for Cabin Cr. Peak L #4..... | 57 |
| Table 41. | Alpine Lake survey data for China L #3..... | 58 |
| Table 42. | Alpine Lake survey data for China L 1..... | 59 |
| Table 43. | Alpine Lake survey data for Cove L..... | 60 |
| Table 44. | Alpine Lake survey data for Cove L #A..... | 61 |
| Table 45. | Alpine Lake survey data for Dairy L..... | 62 |
| Table 46. | Alpine Lake survey data for Deer L..... | 63 |
| Table 47. | Alpine Lake survey data for Dioxide L..... | 64 |
| Table 48. | Alpine Lake survey data for Dutch L..... | 65 |
| Table 49. | Alpine Lake survey data for Eddy L..... | 66 |
| Table 50. | Alpine Lake survey data for Eddy L #A..... | 67 |
| Table 51. | Alpine Lake survey data for Elk L..... | 68 |
| Table 52. | Alpine Lake survey data for F 82 L..... | 69 |
| Table 53. | Alpine Lake survey data for Goat L..... | 70 |
| Table 54. | Alpine Lake survey data for Hansen L #2..... | 71 |
| Table 55. | Alpine Lake survey data for Hansen L #3..... | 72 |
| Table 56. | Alpine Lake survey data for Hansen L #4..... | 73 |

TABLE OF CONTENTS (Continued)

| | | <u>Page</u> |
|-----------|---|-------------|
| Table 57. | Alpine Lake survey data for Hansen L #5 | 74 |
| Table 58. | Alpine Lake survey data for Hansen L #5A | 75 |
| Table 59. | Alpine Lake survey data for Hansen L #5B | 76 |
| Table 60. | Alpine Lake survey data for Hansen L #5C | 77 |
| Table 61. | Alpine Lake survey data for Hatchet L. | 78 |
| Table 62. | Alpine Lake survey data for Hell Roaring #12 | 79 |
| Table 63. | Alpine Lake survey data for Hell Roaring #13 | 80 |
| Table 64. | Alpine Lake survey data for Hell Roaring #4 | 81 |
| Table 65. | Alpine Lake survey data for Hell Roaring Lake | 82 |
| Table 66. | Alpine Lake survey data for Hell Roaring Lake #1..... | 83 |
| Table 67. | Alpine Lake survey data for Hell Roaring L #10A | 84 |
| Table 68. | Alpine Lake survey data for Hell Roaring L #1A..... | 85 |
| Table 69. | Alpine Lake survey data for Hell Roaring L #2 | 86 |
| Table 70. | Alpine Lake survey data for Hell Roaring L #2A..... | 87 |
| Table 71. | Alpine Lake survey data for Hell Roaring L #3 | 88 |
| Table 72. | Alpine Lake survey data for Hell Roaring L #6 | 89 |
| Table 73. | Alpine Lake survey data for Hell Roaring L #7 | 90 |
| Table 74. | Alpine Lake survey data for Hidden L. | 91 |
| Table 75. | Alpine Lake survey data for Hindman L #1..... | 92 |
| Table 76. | Alpine Lake survey data for Hindman L #2..... | 93 |
| Table 77. | Alpine Lake survey data for Hindman L #3..... | 94 |
| Table 78. | Alpine Lake survey data for Horseshoe L. | 95 |
| Table 79. | Alpine Lake survey data for Imogene L #1 | 96 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|---|-------------|
| Table 80. Alpine Lake survey data for Imogene L #1A..... | 97 |
| Table 81. Alpine Lake survey data for Imogene L #3..... | 98 |
| Table 82. Alpine Lake survey data for Imogene L #5..... | 99 |
| Table 83. Alpine Lake survey data for Imogene L #6..... | 100 |
| Table 84. Alpine Lake survey data for Imogene L #7..... | 101 |
| Table 85. Alpine Lake survey data for Imogene L #8..... | 102 |
| Table 86. Alpine Lake survey data for Imogene L #9..... | 103 |
| Table 87. Alpine Lake survey data for Knapp L #10 | 104 |
| Table 88. Alpine Lake survey data for Knapp L #11 | 105 |
| Table 89. Alpine Lake survey data for Knapp L #11 A | 106 |
| Table 90. Alpine Lake survey data for Knapp L #12 | 107 |
| Table 91. Alpine Lake survey data for Knapp L #13 | 108 |
| Table 92. Alpine Lake survey data for Knapp L #14 | 109 |
| Table 93. Alpine Lake survey data for Knapp L #14 B | 110 |
| Table 94. Alpine Lake survey data for Knapp L #14 D | 111 |
| Table 95. Alpine Lake survey data for Knapp L #14A..... | 112 |
| Table 96. Alpine Lake survey data for Knapp L #14C..... | 113 |
| Table 97. Alpine Lake survey data for Knapp L #3 | 114 |
| Table 98. Alpine Lake survey data for Knapp L #4 | 115 |
| Table 99. Alpine Lake survey data for Knapp L #5 | 116 |
| Table 100. Alpine Lake survey data for Knapp L #5A..... | 117 |
| Table 101. Alpine Lake survey data for Knapp L #5B..... | 118 |
| Table 102. Alpine Lake survey data for Knapp L #5C..... | 119 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|---|-------------|
| Table 103. Alpine Lake survey data for Knapp L #6 | 120 |
| Table 104. Alpine Lake survey data for Knapp L #7 | 121 |
| Table 105. Alpine Lake survey data for Knapp L #7A | 122 |
| Table 106. Alpine Lake survey data for Knapp L #8 | 123 |
| Table 107. Alpine Lake survey data for Knapp L #9 | 124 |
| Table 108. Alpine Lake survey data for Lick Cr. L #1 | 125 |
| Table 109. Alpine Lake survey data for Lick Cr. L #1A | 126 |
| Table 110. Alpine Lake survey data for Lightning L. | 127 |
| Table 111. Alpine Lake survey data for Little Frog L. | 128 |
| Table 112. Alpine Lake survey data for Lodgepole L. | 129 |
| Table 113. Alpine Lake survey data for Loon Cr. L #1 | 130 |
| Table 114. Alpine Lake survey data for Loon Cr. L #10 | 131 |
| Table 115. Alpine Lake survey data for Loon Cr. L #11 | 132 |
| Table 116. Alpine Lake survey data for Loon Cr. L #2 | 133 |
| Table 117. Alpine Lake survey data for Loon Cr. L #3 | 134 |
| Table 118. Alpine Lake survey data for Loon Cr. L #5 | 135 |
| Table 119. Alpine Lake survey data for Loon Cr. L #6 | 136 |
| Table 120. Alpine Lake survey data for Loon Cr. L #7 | 137 |
| Table 121. Alpine Lake survey data for Loon Cr. L #8 | 138 |
| Table 122. Alpine Lake survey data for Loon Cr. L #9 | 139 |
| Table 123. Alpine Lake survey data for Loon Cr. L #9A | 140 |
| Table 124. Alpine Lake survey data for Loon L #2A | 141 |
| Table 125. Alpine Lake survey data for lower Cramer L. | 142 |

TABLE OF CONTENTS (Continued)

| | | <u>Page</u> |
|------------|---|-------------|
| Table 126. | Alpine Lake survey data for lower Cramer L #A | 143 |
| Table 127. | Alpine Lake survey data for lower Valley Cr. L..... | 144 |
| Table 128. | Alpine Lake survey data for Lucille L..... | 145 |
| Table 129. | Alpine Lake survey data for Lucille L #A | 146 |
| Table 130. | Alpine Lake survey data for Macrae L..... | 147 |
| Table 131. | Alpine Lake survey data for Marshall L #1 | 148 |
| Table 132. | Alpine Lake survey data for Martha L..... | 149 |
| Table 133. | Alpine Lake survey data for Martha L #A | 150 |
| Table 134. | Alpine Lake survey data for Martha L #B | 151 |
| Table 135. | Alpine Lake survey data for Martha L #C | 152 |
| Table 136. | Alpine Lake surveys data for McDonald L #1 | 153 |
| Table 137. | Alpine Lake survey data for McDonald L #2..... | 154 |
| Table 137. | Alpine Lake survey data for McDonald L #2..... | 155 |
| Table 138. | Alpine Lake survey data for Middle Cramer L | 155 |
| Table 139. | Alpine Lake survey data for Mystery L #2 | 156 |
| Table 140. | Alpine Lake survey data for Mystery L #3 | 157 |
| Table 141. | Alpine Lake survey data for Newman L..... | 158 |
| Table 142. | Alpine Lake survey data for Nez Perce L..... | 159 |
| Table 143. | Alpine Lake survey data for P38 L..... | 160 |
| Table 144. | Alpine Lake survey data for Phyllis L..... | 161 |
| Table 145. | Alpine Lake survey data for Pinyon L..... | 162 |
| Table 146. | Alpine Lake survey data for Profile L..... | 163 |
| Table 147. | Alpine Lake survey data for Shelf L..... | 164 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|---|-------------|
| Table 148. Alpine Lake survey data for Six L #1..... | 165 |
| Table 149. Alpine Lake survey data for Six L #5..... | 166 |
| Table 150. Alpine Lake survey data for Slide Rock L..... | 167 |
| Table 151. Alpine Lake survey data for Tango L #2..... | 168 |
| Table 152. Alpine Lake survey data for Tango L #3..... | 169 |
| Table 153. Alpine Lake survey data for Tango L #4..... | 170 |
| Table 154. Alpine Lake survey data for Tango L #5..... | 171 |
| Table 155. Alpine Lake survey data for Tango L #6..... | 172 |
| Table 156. Alpine Lake survey data for Tango L #7..... | 173 |
| Table 157. Alpine Lake survey data for Thunder L. | 174 |
| Table 158. Alpine Lake survey data for upper Cramer L..... | 175 |
| Table 159. Alpine Lake survey data for upper Cramer L #A | 176 |
| Table 160. Alpine Lake survey data for upper Redfish L #1..... | 177 |
| Table 161. Alpine Lake survey data for upper Redfish L #2..... | 178 |
| Table 162. Alpine Lake survey data for upper Redfish L #3..... | 179 |
| Table 163. Alpine Lake survey data for Vanity L #1..... | 180 |
| Table 164. Alpine Lake survey data for Vanity L #10..... | 181 |
| Table 165. Alpine Lake survey data for Vanity L #2..... | 182 |
| Table 166. Alpine Lake survey data for Vanity L #3..... | 183 |
| Table 167. Alpine Lake survey data for Vanity L #6..... | 184 |
| Table 168. Alpine Lake survey data for Vanity L #7..... | 185 |
| Table 169. Alpine Lake survey data for W. F. Morgan Cr. L #1..... | 186 |
| Table 170. Alpine Lake survey data for W.F. Morgan Cr. L #2..... | 187 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|---|-------------|
| Table 171. Alpine Lake survey data for White Goat L. | 188 |
| Table 172. Alpine Lake survey data for Willow L. | 189 |
| Table 173. Alpine Lake survey data for Wright L. | 190 |

Surveys and Inventories - Salmon Region Lowland Lake Investigations-Mosquito Flats Reservoir

| | |
|-----------------------------|-----|
| ABSTRACT | 191 |
| INTRODUCTION | 192 |
| METHODS..... | 192 |
| RESULTS AND DISCUSSION..... | 192 |
| LITERATURE CITED..... | 194 |

LIST OF FIGURES

| | |
|---|-----|
| Figure 1. Number and species of fish captured from Mosquito Flats Reservoir, Idaho, during 1992, 1996, and 2000 | 193 |
|---|-----|

Surveys and Inventories - Salmon Region Lowland Lake Investigations - Williams Lake

| | |
|---|-----|
| ABSTRACT | 195 |
| INTRODUCTION | 196 |
| OBJECTIVES | 196 |
| METHODS..... | 196 |
| RESULTS..... | 197 |
| DISCUSSION | 198 |
| LITERATURE CITED..... | 199 |
| APPENDIX | 200 |
| Appendix A. Williams Lake at inlet..... | 201 |

TABLE OF CONTENTS (Continued)

Page

LIST OF TABLES

| | | |
|----------|---|-----|
| Table 1. | Results of gill net surveys in Williams Lake, 1996 and 2000 | 197 |
|----------|---|-----|

Surveys and Inventories - Salmon Region Lowland Lake Investigations - Alturas Lake

| | |
|-----------------------------|-----|
| ABSTRACT | 202 |
| INTRODUCTION | 203 |
| METHODS..... | 203 |
| RESULTS AND DISCUSSION..... | 203 |
| RECOMMENDATIONS..... | 204 |

LIST OF TABLES

| | | |
|----------|---|-----|
| Table 1. | Results of fish surveys conducted below the experimental weir installed on Alturas Lake Creek, Idaho, during the late summer of 2000 | 204 |
|----------|---|-----|

Surveys and Inventories - Salmon Region Rivers and Stream Investigations- Wild Trout Population Surveys- Big Springs Creek

| | |
|-----------------------------|-----|
| ABSTRACT | 205 |
| OBJECTIVE..... | 206 |
| STUDY AREA AND METHODS..... | 206 |
| RESULTS AND DISCUSSION..... | 206 |

LIST OF TABLES

| | | |
|----------|---|-----|
| Table 1. | Number of resident rainbow trout redds counted in Big Springs Creek (BSC) and Lemhi River, 1994 through 2001 | 207 |
|----------|---|-----|

Surveys and Inventories - Salmon Region Rivers and Streams Investigations-Wild Trout Population Surveys-Upper Salmon River Tributary Investigations

| | |
|----------------|-----|
| ABSTRACT | 208 |
|----------------|-----|

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|-----------------------------|-------------|
| INTRODUCTION | 209 |
| OBJECTIVE..... | 209 |
| STUDY AREA AND METHODS..... | 209 |
| RESULTS AND DISCUSSION..... | 210 |
| LITERATURE CITED..... | 221 |
| APPENDICES..... | 222 |

LIST OF TABLES

| | | |
|----------|---|-----|
| Table 1. | Combined salmonid (westslope cutthroat trout, bull trout, rainbow/steelhead trout, rainbow/cutthroat trout hybrids, brook trout, and whitefish) population estimates, 95% confidence intervals (CI), and capture probabilities for selected streams connected to the upper Salmon River in 2000. | 211 |
| Table 2. | Westslope cutthroat trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach..... | 213 |
| Table 3. | Rainbow / steelhead trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach..... | 215 |
| Table 4. | Bull trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach..... | 216 |
| Table 5. | Rainbow/Cutthroat Hybrid trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. M=middle reach and U=upper reach..... | 216 |
| Table 6. | Eastern brook trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U= upper reach..... | 217 |
| Table 7. | Mountain whitefish collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U= upper reach..... | 217 |

TABLE OF CONTENTS (Continued)

| | Page |
|--|------|
| Table 8. Mean total lengths, minimum total lengths, maximum total lengths, and standard deviations for westslope cutthroat trout collected from various tributary streams of the upper Salmon River, Idaho, during the summer of 2000..... | 218 |
| Table 9. Mean total lengths, minimum total lengths, maximum total lengths, and standard deviations for rainbow / steelhead trout collected from various streams in the upper Salmon River Basin, Idaho, during the summer of 2000..... | 219 |
| Table 10. Mean total lengths, minimum total lengths, maximum total lengths, and standard deviations for bull trout collected from various streams in the upper Salmon River Basin during the summer of 2000..... | 220 |

Surveys and Inventories - Salmon Region Rivers and Streams Investigations Valley Creek Brook Trout Reduction

| | |
|-----------------------------|-----|
| ABSTRACT | 233 |
| INTRODUCTION | 234 |
| OBJECTIVES | 234 |
| STUDY AREA..... | 234 |
| METHODS..... | 236 |
| RESULTS AND DISCUSSION..... | 236 |
| Removal Efforts..... | 236 |
| Reintroduction Efforts..... | 237 |
| RECOMMENDATIONS..... | 237 |
| LITERATURE CITED..... | 244 |

LIST OF TABLES

| | |
|--|-----|
| Table 1. Number of brook trout removed from Valley Creek 1995-2000 | 237 |
| Table 2. Fish stocked in Valley Creek from 1995 through 2000 | 238 |

TABLE OF CONTENTS (Continued)

Page

LIST OF FIGURES

| | | |
|-----------|---|-----|
| Figure 1. | Map of the Valley Creek drainage, central Idaho | 235 |
| Figure 2. | Density of Brook trout <90 mm total length in Valley Creek, 1992 – 2000 (Data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies) | 240 |
| Figure 3. | Density of brook trout 90 – 170 mm total length in Valley Creek, 1992 – 2000 (Data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies) | 241 |
| Figure 4. | Density of brook trout >170 mm total length in Valley Creek, 1992 – 2000 (Data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies) | 242 |
| Figure 5. | Population densities of bull trout, westslope cutthroat trout and steelhead in Valley Creek, 1992-2000 (data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies) | 243 |

Surveys and Inventories - Salmon Region Rivers and Streams Investigations-Lemhi River Monitoring Project

| | |
|--|-----|
| ABSTRACT | 245 |
| INTRODUCTION | 246 |
| OBJECTIVES | 246 |
| AREA DESCRIPTION | 248 |
| METHODS | 249 |
| Juvenile Chinook Salmon Movement | 249 |
| Juvenile Chinook Salmon Rearing | 249 |
| Adult Chinook Salmon Movement | 252 |
| Water Temperature | 252 |
| Passage Barriers | 252 |
| Flow | 252 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|--|-------------|
| RESULTS | 254 |
| Juvenile Chinook Salmon Movement | 255 |
| Juvenile Chinook Salmon Rearing..... | 255 |
| Adult Chinook Salmon Movement | 257 |
| Water Temperature | 257 |
| Passage Barriers..... | 259 |
| Flow..... | 259 |
| DISCUSSION | 265 |
| Juvenile Chinook Salmon Movement | 265 |
| Juvenile Chinook Salmon Rearing..... | 265 |
| Water Temperature | 267 |
| Passage Barrier | 267 |
| Flow..... | 267 |
| Other Comments..... | 267 |
| ACKNOWLEDGEMENTS | 269 |
| LITERATURE CITED..... | 270 |
| APPENDIX | 271 |

LIST OF TABLES

| | | |
|----------|---|-----|
| Table 1. | Fish species and numbers collected from Lemhi River, Idaho, by Hayden Creek Trap (HCT) and North Saint Charles Street Bridge Trap (NST) during the period July 12, 2000 through September 15, 2000..... | 256 |
| Table 2. | Total number of salmonids and non-salmonids observed during snorkel surveys on three reaches of the lower Lemhi River, Idaho, during the summer of 2000..... | 256 |

LIST OF FIGURES

| | | |
|-----------|---|-----|
| Figure 1. | Map of study area..... | 247 |
| Figure 2. | Trapping locations on the Lemhi River, Idaho..... | 250 |
| Figure 3. | Dates and locations of snorkel surveys conducted on the Lemhi River, Idaho, during the summer of 2000 | 251 |

TABLE OF CONTENTS (Continued)

| | | <u>Page</u> |
|------------|--|-------------|
| Figure 4. | Locations (•) where automatic electronic recording devices measured water temperatures during the summer of 2000..... | 253 |
| Figure 5. | Locations (•) where hand-held thermometers were used to measure water temperatures during the summer of 2000..... | 254 |
| Figure 6. | Maximum, daily mean, and minimum Lemhi River water temperatures recorded at irrigation diversion L – 6 during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (- -) are included | 258 |
| Figure 7. | Maximum, daily mean, and minimum Lemhi River water temperatures recorded at River Mile 7.0 during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (--) are included | 260 |
| Figure 8. | Maximum, daily mean, and minimum Lemhi River water temperatures recorded at River Mile 3.0 during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (- -) are included | 261 |
| Figure 9. | Maximum, daily mean, and minimum Lemhi River water temperatures recorded at North Saint Charles Street Bridge Trap during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (- -) are included | 262 |
| Figure 10. | Comparison of water temperatures between irrigation return ditches and the lower Lemhi River during the summer of 2000..... | 263 |
| Figure 11. | Mean daily water temperature measured at the Salmon and lower Lemhi Rivers near Salmon, Idaho, during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (- -) are included | 264 |
| Figure 12. | Temporary coffer dams installed at two locations on the lower Lemhi River, Idaho, during the summer of 2000 for the purpose of enhancing fish passage conditions..... | 264 |
| Figure 13. | Lower Lemhi River (Idaho) flow measured near irrigation diversion L – 5 (USGS gauge #13305310) for the years of 1997, 1998, 1999, and 2000..... | 266 |

TABLE OF CONTENTS (Continued)

| | <u>Page</u> |
|--|-------------|
| <u>Salmon Region Technical Guidance</u> | |
| ABSTRACT | 273 |
| OBJECTIVES | 274 |
| METHODS..... | 274 |
| RESULTS | 274 |
| RECOMMENDATIONS..... | 275 |

LIST OF TABLES

| | | |
|----------|---|-----|
| Table 1. | Responses to requests for technical assistance or comments on water and fishery-related matters | 274 |
|----------|---|-----|

2000 ANNUAL PERFORMANCE REPORT

State of: Idaho

Program: Fisheries Management F-71-R-24

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: a¹

Title: Mountain Lake Investigations - Stocking

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

The Idaho Department of Fish & Game stocked 90 alpine mountain lakes in the Salmon Region via airplane during the summer of 2000. A total of 620 golden trout *Oncorhynchus aquabonita* were stocked in Gooseneck Lake in the Salmon National Forest. In the Sawtooth Wilderness Area, 3,275 golden trout were stocked in one lake, 4,525 sterile triploid Hayspur rainbow trout *O. mykiss* were stocked in seven lakes, and 13,250 westslope cutthroat trout *O. clarki lewisi* were stocked in 31 lakes. In the Sawtooth National Forest, 950 westslope cutthroat trout were stocked in four lakes. In the Challis National Forest, 13,300 westslope cutthroat trout were stocked in 37 alpine lakes, and 5,825 Hayspur rainbow trout were stocked in nine alpine lakes.

Authors:

Arnie Brimmer
Regional Fishery Biologist

Rebecca M. Andersen
Regional Fishery Technician

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

OBJECTIVES

Maintain a viable and diverse high mountain lake fishery in the Salmon Region.

METHODS

We used a Cessna-185 fixed-wing airplane to stock Salmon Region high mountain lakes during the summer of 2000.

RESULTS

In the Salmon Region (including the Salmon National Forest, the Challis National Forest, the Sawtooth National Forest, and the Sawtooth Wilderness Area), a total of 90 alpine mountain lakes were stocked with 41,845 trout. Out of the total number of trout stocked in the Salmon Region, 10,350 were sterile triploid Hayspur rainbow trout *Oncorhynchus mykiss* stocked in 16 lakes by the McCall Fish Hatchery on August 8, 2000. McCall Fish Hatchery personnel also stocked 3,895 golden trout *O. aquabonita* in 2 lakes on August 31, 2000. There were 27,500 westslope cutthroat trout *O. clarki lewisi* stocked in 72 lakes by the Sawtooth Fish Hatchery between August 17 and September 6, 2000. Four aircraft flights were used for all stocking at a total cost of \$1,728.00 (\$23.35 per lake).

Table 1 shows the stocking record of 2000, including: lakes stocked, catalog numbers of stocked lakes, trout species stocked, land area locations of lakes stocked within the Salmon region, and numbers of trout added to each lake.

Table 1. Salmon Region high mountain (alpine) lakes stocked during the summer of 2000. All fish were stocked by Sawtooth Fish Hatchery personnel unless otherwise stated.

| Lake Name | Catalog no. | Land area ^c | Species ^a | No. stocked |
|------------------------------------|-------------|------------------------|----------------------|-------------|
| Alpine Creek Lake #04 ^b | 7-1787 | SWA | T9 | 1575 |
| Alpine Creek Lake #05 ^b | 7-1788 | SWA | T9 | 125 |
| Alpine Creek Lake #06 | 7-1789 | SWA | C2 | 300 |
| Alpine Creek Lake #07 | 7-1790 | SWA | C2 | 350 |
| Alpine Creek Lake #11 ^b | 7-1797 | SWA | T9 | 425 |
| Alpine Creek Lake #12 | 7-1798 | SWA | C2 | 50 |
| Alpine Creek Lake #14 ^b | 7-1802 | SWA | T9 | 400 |
| Alpine Lake ^b | 7-1540 | SWA | GN | 3275 |
| Baldwin Creek Lake | 7-1007 | SWA | C2 | 350 |
| Bear Creek Lake #01 | 7-1137 | CNF | C2 | 200 |
| Cabin Creek Lake #03 | 7-1503 | CNF | C2 | 100 |
| Cabin Creek Lake #04 | 7-1504 | CNF | C2 | 600 |
| Cabin Creek lake #07 | 7-1508 | CNF | C2 | 200 |
| Cabin Creek Peak Lake #03 | 7-1492 | CNF | C2 | 150 |
| Cabin Creek Peak Lake #04 | 7-1493 | CNF | C2 | 150 |
| Cliff Creek lake #01 | 7-1144 | CNF | C2 | 150 |
| Cliff Creek Lake #04 | 7-1146 | CNF | C2 | 100 |
| Collie Creek Lake #01 | 7-1111 | CNF | C2 | 1075 |
| Decker Creek Lake #01 | 7-1659 | SWA | C2 | 175 |
| Elizabeth Lake | 7-1570 | SNF | C2 | 500 |
| Elk Lake | 7-1163 | CNF | C2 | 400 |
| Finger Lake #03 (Fall Creek L #03) | 7-1094 | CNF | C2 | 475 |
| Fishhook Creek Lake #02 (NE) | 7-1607 | SWA | C2 | 100 |
| Fishhook Creek Lake #03 (south) | 7-1610 | SWA | C2 | 100 |
| Goat lake #01 | 7-1530 | SWA | C2 | 2825 |
| Goat Lake #04 | 7-1535 | SWA | C2 | 400 |
| Goat Lake #05 | 7-1536 | SWA | C2 | 100 |
| Gooseneck Lake ^b | 7-1187 | SNF | GN | 620 |
| Hanson Lake #01 | 7-0118 | SWA | C2 | 225 |
| Hanson Lake #05 | 7-1561 | SWA | C2 | 125 |
| Harlan Creek Lake #01 | 7-0980 | CNF | C2 | 300 |
| Harlan Creek Lake #02 | 7-0983 | CNF | C2 | 250 |
| Hasbrook Lake #01 | 7-0992 | CNF | C2 | 375 |
| Helldiver Lake | 7-0989 | CNF | C2 | 550 |
| Hidden Lake | 7-1573 | SNF | C2 | 250 |

Table 1. Continued.

| Lake Name | Catalog no. | Land area ^c | Species ^a | No. stocked |
|---|-------------|------------------------|----------------------|-------------|
| Imogene Lake #01 ^b | 7-1713 | SWA | T9 | 1850 |
| Imogene Lake #02 | 7-1714 | SWA | C2 | 200 |
| Imogene Lake #03 | 7-1715 | SWA | C2 | 625 |
| Imogene Lake #04 | 7-1717 | SWA | C2 | 100 |
| Imogene Lake #05 | 7-1718 | SWA | C2 | 200 |
| Imogene Lake #06 | 7-1719 | SWA | C2 | 525 |
| Iris Lake #01 | 7-1074 | CNF | C2 | 225 |
| Iron Creek Lake #06 ^b | 7-1547 | SWA | T9 | 75 |
| Iron Creek Lake #07 ^b | 7-1548 | SWA | T9 | 75 |
| Island Lake ^b | 7-1127 | CNF | T9 | 1575 |
| Kidney Lake #02 | 7-1033 | CNF | C2 | 150 |
| Knapp Lake #07 | 7-1169 | CNF | C2 | 200 |
| Langer Lake #01 ^b | 7-1133 | CNF | T9 | 1000 |
| Lola Lake #02 | 7-1148 | CNF | C2 | 500 |
| Lola Lake #03 | 7-1149 | CNF | C2 | 500 |
| Loon Creek Lake #03 | 7-0904 | CNF | C2 | 150 |
| Loon Creek lake #11 | 7-0917 | CNF | C2 | 175 |
| Loon Creek Lake #13 | 7-0919 | CNF | C2 | 225 |
| Loon Creek Lake #15 | 7-0923 | CNF | C2 | 175 |
| Lost lake | 7-0988 | CNF | C2 | 200 |
| Lower Island Lake | 7-1129 | CNF | C2 | 550 |
| Lucille Lake | 7-1708 | SWA | C2 | 775 |
| Marshall Lake #02 | 7-1525 | SWA | C2 | 600 |
| Martha Lake | 7-1569 | SNF | C2 | 200 |
| McGowan Lake #03 | 7-1565 | SWA | C2 | 300 |
| Muskeg Lake #01 (Muskey L 1) ^b | 7-1043 | CNF | T9 | 500 |
| Muskeg Lake #03 (Muskey L 3) ^b | 7-1046 | CNF | T9 | 500 |
| P 38 Lake | 7-1160 | CNF | C2 | 325 |
| Parks Peak Lake #01 | 7-1745 | SWA | C2 | 500 |
| Profile Lake | 7-1710 | SWA | C2 | 500 |
| Rainbow Lake ^b | 7-1153 | CNF | T9 | 250 |
| Rocky Lake | 7-1135 | CNF | C2 | 450 |
| Ruffneck Lake ^b | 7-1130 | CNF | T9 | 1250 |
| Saddleback Lake #01 | 7-1618 | SWA | C2 | 300 |
| Saddleback Lake #02 | 7-1619 | SWA | C2 | 300 |
| Seafoam Lake #06 | 7-1005 | CNF | C2 | 600 |
| Soldier Lake #04 | 7-1050 | CNF | C2 | 975 |

Table 1. Continued.

| Lake Name | Catalog no. | Land area ^c | Species ^a | No. stocked |
|------------------------------------|-------------|------------------------|----------------------|-------------|
| Soldier Lake #07 | 7-1055 | CNF | C2 | 250 |
| Soldier Lake #08 | 7-1057 | CNF | C2 | 250 |
| Soldier Lake #10 | 7-1059 | CNF | C2 | 250 |
| Soldier Lake #11 | 7-1060 | CNF | C2 | 250 |
| Tango Lake #04 | 7-0893 | CNF | C2 | 675 |
| Tango Lake #06 | 7-0895 | CNF | C2 | 900 |
| Thompson Cirque Lake | 7-1604 | SWA | C2 | 900 |
| Upper Cramer lake | 7-1657 | SWA | C2 | 275 |
| Upper Hell Roaring Lake #01 | 7-1687 | SWA | C2 | 200 |
| Upper Hell Roaring Lake #02 | 7-1688 | SWA | C2 | 250 |
| Upper Redfish Lake #02 | 7-1635 | SWA | C2 | 325 |
| Upper Redfish Lake #03(Kathryn) | 7-1636 | SWA | C2 | 600 |
| Valley Creek Lake #02 | 7-1587 | SNF | C2 | 400 |
| Vanity Lake #03 | 7-1013 | CNF | C2 | 275 |
| Vanity Lake #05 | 7-1015 | CNF | C2 | 125 |
| Vanity Creek Lake #01 ^b | 7-1009 | CNF | T9 | 300 |
| Vanity Creek Lake #04 ^b | 7-1014 | CNF | T9 | 250 |
| Vanity Creek Lake #07 ^b | 7-1017 | CNF | T9 | 200 |

^a C2 = Westslope cutthroat trout, T9 = sterile triploid Hayspur rainbow trout, GN = golden trout.

^b Fish stocked by McCall Fish Hatchery personnel.

^c CNF = Challis National Forest, SNF = Salmon National Forest, STNF = Sawtooth National Forest, and SWA = Sawtooth Wilderness Area.

2000 ANNUAL PERFORMANCE REPORT

State Of: Idaho

Program: Fisheries Management F-71-R-25

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: a²

Title: Mountain Lake Investigations –
Carlson Lake Population Control

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

On October 8 and 9, 2000, we gillnetted and removed stunted eastern brook trout *Salvelinus fontinalis* from Carlson Lake in an effort to increase the mean size of the population. We removed 665 brook trout during 296.7 diel net hours. Since 1997, 4,093 eastern brook trout have been removed. Average total length of brook trout has not increased appreciably since project implementation. However, there has been a slight visual improvement in condition factor of the fish.

Authors:

Arnie Brimmer
Regional Fishery Biologist

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

Rebecca Andersen
Fishery Technician

INTRODUCTION

Carlson Lake is a sub-alpine lake in the Pahsimeroi River drainage located at T11N, R23E, S17 at approximately 2,438 m elevation. An intermittent outlet from the lake drains into Double Springs Creek, a tributary of the Pahsimeroi River. This outlet is only active during summer months in high water years (Liter and Lukens 1994). In the past, Idaho Department of Fish and Game (IDFG) has stocked eastern brook trout *Salvelinus fontinalis* and rainbow trout *Oncorhynchus mykiss* into the lake (Appendix A).

Historically, Carlson Lake produced 0.9 to 1.4 kg eastern brook trout (brook trout), but by 1975 there was public concern over the decline in the numbers of these large fish (Kent Ball, intradepartmental memos 1975). Notes from a 1992 lake survey indicated that the littoral zone was heavily grazed, aquatic macrophyte growth was prolific, and the fish sampled were in poor condition with disproportionately large heads (Liter and Lukens 1994).

In 1993 the department stocked predatory Kamloops strain rainbow trout to reduce the numbers of stunted brook trout and restore larger fish to the lake. However, this introduction evidently failed since subsequent surveys of Carlson Lake have failed to produce any Kamloops strain rainbow trout.

OBJECTIVE

By reducing their numbers, increase the average size of brook trout in Carlson Lake to improve the quality of the fishery.

METHODS

Fifteen 1.8 x 38 m variable sized mesh gill nets were used on October 8-9, 2000 to sample and remove brook trout from Carlson Lake. Using a rubber raft, we set gill nets perpendicular to the shoreline with the large mesh end of the net towards the middle of the lake. We set the nets the evening of October 8 and retrieved them the following morning.

A portion of the brook trout we removed from the lake were used to assess brook trout caecal fat levels, to gather information on brook trout sex ratios, and to assess the condition and status of the brook trout population in the lake. Caecal fat content was subjectively determined by visual inspection. Captured fish were killed, dissected, and caecal fat examined. Percent caecal fat was recorded in intervals of 25 (0, 25, 50, 75, 100). Brook trout sex ratios were determined by inspecting their gonads. Total lengths (to the nearest millimeter) were taken from a subsample of captured brook trout to help us assess the condition and status of the population.

RESULTS

We captured a total of 665 brook trout during 270.9 diel gill net hours. Overall catch-per-unit-effort was calculated to be 2.5 fish/gill net hour (Table 1). Of the 665 brook trout removed from the lake, 75 were used to determine caecal fat content. Female brook trout averaged 39.1% caecal fat whereas males had an average of 33.6% caecal fat. Brook trout of unknown sex had an average of 35.9% caecal fat. We sexed 207 of the 665 brook trout removed from the lake. Males comprised 54% (111) and females 46% (96) of the subsample, respectively. We measured 531 of the brook trout removed from the lake. The total length (TL) of these fish ranged from 108 to 270 mm with an overall mean TL of 191 mm and median length of 196 mm (Figure 1). Brook trout were captured in 15 of 16 nets set. Net 1 did not capture any brook trout due to its large mesh size (38.1 mm). Appendix B contains the number of fish caught per net, net type and size, times of deployment and retrieval, and the total hours the nets were fished.

DISCUSSION

Mean length of Carlson Lake brook trout has not increased appreciably since the project began in 1997. However, we have noticed an improvement in the condition of the population. Although this change is relatively small, fish sampled in 2000 appeared to be healthier and in better condition than brook trout collected in previous years. Fish were not weighed at the beginning of the project; therefore, a change in condition could not be quantified.

To date, we have not been successful in reaching the objective of this project. In order to affect a significant change in the mean length of Carlson Lake brook trout, it appears we will need to employ more drastic population control measures. We have considered renovating the entire lake with rotenone but feel that measure to be too extreme to pursue at this time. The option we have chosen to implement in 2001 or 2002 (depending on fish availability) is to stock Carlson Lake with about 20 tiger muskies (*Esox lucius* x *Esox masquinongy*). These fish will be stocked at a size large enough (300–350 mm) to have an immediate impact on the brook trout population. The Department is currently experimenting with tiger muskie introductions in several mountain lakes in the Clearwater Region. Preliminary results suggest these introductions have been successful in significantly reducing brook trout numbers (Tim Cochnauer, personal communication).

Table 1. Comparison of eastern brook trout lengths and gill netting efforts in Carlson Lake, Idaho, 1992-2000.

| | 1996 | 1997 | 1998 | 1999 | 2000 |
|------------------------|---------|---------|---------|---------|---------|
| Date | 6/13 | 5/27-28 | 5/22-23 | 5/27-29 | 10/8-9 |
| Numbers removed | N/A | 999 | 818* | 1,151 | 665 |
| Size range (mm) | 164-310 | 118-240 | 120-292 | 112-300 | 108-270 |
| Mean total length (mm) | 217 | 192 | 196 | 198 | 191 |
| Total gill net hours | N/A | 466.4 | 483.3 | 386.1 | 270.9 |
| Fish/net hour | N/A | 2.1 | 1.7 | 3.0 | 2.5 |

* An additional 460 brook trout were removed with explosives.

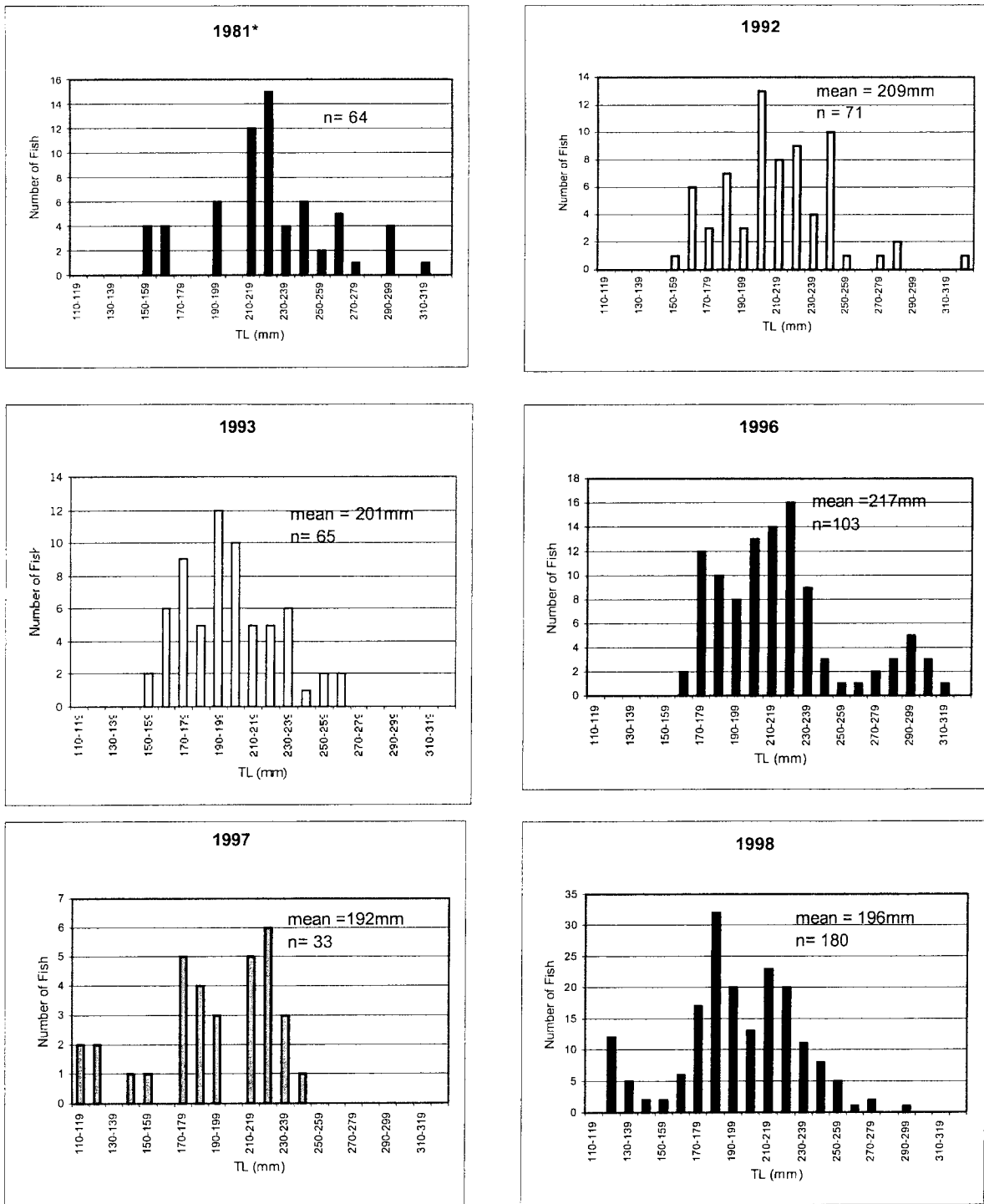
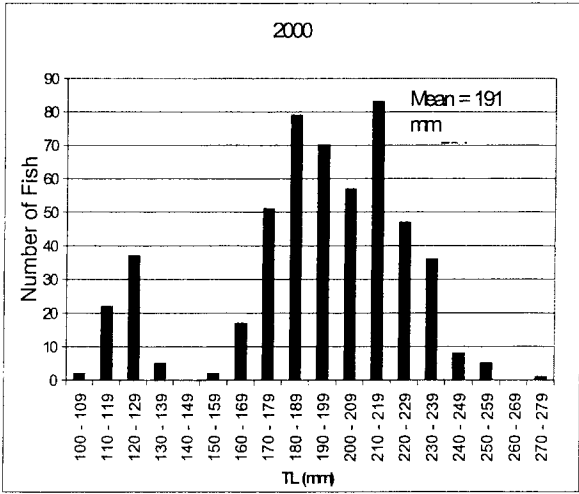
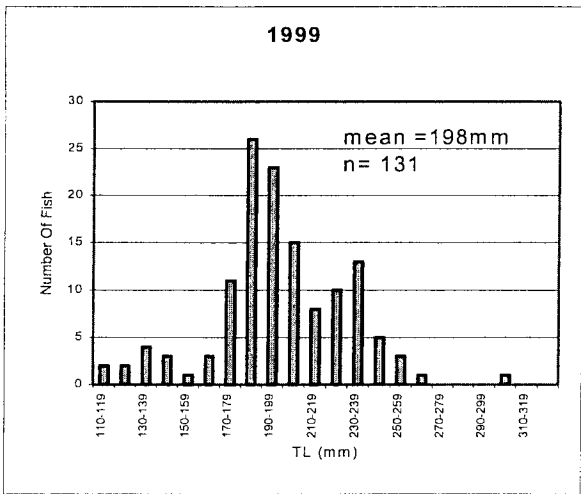


Figure 1. Length frequency histograms for brook trout in Carlson Lake during specified years, 1981-1999. In 1981 a mean length is not available as brook trout were measured by 10 mm length classes and no individual lengths were taken.

Figure 1. continued.



LITERATURE CITED

Ball, K. 1975. Intradepartmental memo, Idaho Department of Fish and Game.

Liter, M. and J.R. Lukens. 1994. Federal Aid in Fish and Wildlife Restoration. Regional Fisheries Management Investigations, Salmon Region, Mountain Lakes Investigations, Job Performance Report, Project F-71-R17, Idaho Department of Fish and Game, Boise.

APPENDICES

Appendix A. Carlson Lake stocking record.

| Date | Species ^a | Size | Pounds | Number | Source |
|---------|----------------------|-------|--------|--------|--------------------|
| 8/5/93 | K1 | 10.5" | 192 | 702 | Nampa Hatchery |
| 9/19/75 | BK | 0-3" | 15 | 2,685 | Sandpoint Hatchery |
| 8/5/75 | R1 | >6" | 160 | 512 | Mackay Hatchery |
| 7/20/55 | BK | 2-3" | 10 | 1,500 | Mackay Hatchery |
| 1952 | BK | fry | 12 | 1,200 | Mackay Hatchery |
| 1950 | BK | 4" | 10 | 2,000 | Mackay Hatchery |
| 1949 | BK | 3" | 5.75 | 1,040 | Mackay Hatchery |
| 1941 | BK | | | 2,650 | Mackay Hatchery |

^a K1 = Kamloops strain Rainbow Trout, BK = Brook Trout, R1 = Rainbow Trout.

Appendix B. Results of the Carlson Lake Population Procedures in 2000, including net number, net type, time of deployment and removal, diel net hours of all nets, and total number of fish per net.

| Net | Net type | Time | | Diel net hours | Fish per net |
|--------|------------------|----------|---------|----------------|--------------|
| | | Deployed | Removed | | |
| 1 | Experimental | 1700 | 0940 | 16.6 | * |
| 2 | " | 1705 | 0948 | 16.7 | 28 |
| 3 | " | 1710 | 1000 | 16.8 | 27 |
| 4 | ½" square mesh | 1715 | 1017 | 17.0 | 16 |
| 5 | " | 1720 | 1028 | 17.1 | 49 |
| 6 | " | 1725 | 1107 | 17.7 | 46 |
| 7 | " | 1730 | 1120 | 17.8 | 65 |
| 8 | ¾" mesh | 1740 | 1136 | 17.9 | 14 |
| 9 | ¾" constant mesh | 1745 | 1145 | 18.0 | 191 |
| 10 | " | 1750 | 1215 | 18.4 | 37 |
| 11 | 25' net | 1755 | 1225 | 18.5 | 7 |
| 12 | " | 1800 | 1230 | 18.5 | 28 |
| 13 | white net | 1805 | 1237 | 18.5 | 25 |
| 14 | " | 1810 | 1325 | 19.3 | 8 |
| 15 | " | 1815 | 1330 | 19.3 | 88 |
| 16 | ½" constant mesh | 1351 | 1830 | 28.6 | 36 |
| Total: | | | | 296.7 | 665 |

* No fish captured in the net.

2000 ANNUAL PERFORMANCE REPORT

State Of: Idaho

Program: Fisheries Management F-71-R-24

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: a³

Title: Mountain Lakes Investigations

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

Project personnel, assisted on occasion by volunteers of Idaho Department of Fish and Game, Bureau of Land Management, and U.S. Forest Service personnel, surveyed a total of 173 mountain lakes in the Salmon, Challis, and Sawtooth National Forests during July, August, September, and October of 2000. We assessed fishery status via gillnetting and/or angling. We also assessed lake use, natural recruitment potential, and past stocking efforts. Eighty percent of the public use areas we surveyed were in good condition. We determined that fish stocking should be discontinued at 6% of the lakes surveyed due to a lack of appropriate habitat or because naturally reproducing fish populations were present. However, 29% of the lakes we surveyed showed no potential for natural recruitment or showed heavy angling use and should remain on the stocking list. Forty-seven percent (47%) of the lakes surveyed were fishless and should remain fishless to provide refugia for amphibians. Seventeen percent of the lakes we surveyed had naturally reproducing fish populations.

Authors:

Arnie Brimmer
Regional Fishery Biologist

Rebecca M. Andersen
Regional Fishery Technician

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

OBJECTIVES

1. Evaluate the Salmon Region mountain lake fish stocking program through surveys of fishery status, fish population abundance, and appearance of ecological condition of lakes.
2. Collect data on lake access, trail conditions, angler/camper use, and species composition for selected Salmon Region mountain lakes in order to guide future fishery management.

METHODS

Project personnel, assisted on occasion by volunteers and Bureau of Land Management and United States Forest Service personnel, surveyed a total of 173 mountain lakes in the Salmon, Challis, and Sawtooth National Forests during July, August, September, and October of 2000. We sampled fish communities via hook and line, visual observation, and/or gillnetting. We used Catch-Per-Unit-Effort (CPUE) information (hook and line or gill net) to estimate relative abundance of fish in each lake. We also used visual observation to estimate fish relative abundance. These techniques were used separately or in concert to assess stocking success and to formulate future stocking needs. Fish caught from the lakes were speciated, measured (total length) to the nearest millimeter and released. Presence or absence of amphibians was determined by a visual reconnaissance of the perimeter of each lake.

Each lake was also surveyed for use. We assessed the condition of the areas leading to and surrounding each lake. We looked for trampled areas (trails), litter, firepits, and campsites. We ranked use on a scale from low to high. Lake use was determined to be low if no fire rings, campsites, litter or trails around the lake were observed. Lakes were classified 'high' use if several fire rings or campsites were found or if we found litter in the area. A well beaten trail around a lake also indicated high use.

RESULTS AND DISCUSSION

Investigation results showed that fish relative abundance (conducted by visual observation) was moderate to high in 27% of the lakes surveyed. Catch-Per-Unit-Effort information collected from the lakes yielded similar results. In 41 lakes (24%), we experienced catch rates of ≥ 4 fish/hour via gill netting or angling, which was considered to be moderate to high relative abundance. Based on fishery status and ecological condition of lakes, surveys showed that 29% of the lakes should remain on the stocking list. Forty-nine percent of the lakes we surveyed were fishless and we recommend they remain so to provide needed refugia for various amphibian species. Seventeen percent of the lakes surveyed had naturally reproducing fish populations and should not be stocked with additional fish. Results of each survey are listed in Tables 1-173.

Table 1. Alpine Lake survey data for Alpine Cr. L #14.

LAKE LOCATION

Lake Name: Alpine Cr. L #14 Survey Date: 8-13-00
 IDFG Catalog #: 71802 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Alpine C County: Blaine
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8523
 Section: Township: Range: Acres:
 UTM East: 663850 UTM North: 4864950

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|----|----------------------|---|
| Search Time (hrs.min) : <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 40 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 12 # Fish Caught: 25 Fish/Hr: 2.1
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 10 | 2 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

Comments:

Saw lots of adult frogs.

Table 2. Alpine Lake survey data for Alpine L.

LAKE LOCATION

Lake Name: Alpine L Survey Date: 10-7-00
 IDFG Catalog #: 71630 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8379
 Section: Township: Range: Acres:
 UTM East: 658288 UTM North: 4880886

LAKE USE

Campsites: 15 # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): 5 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Redfish Inlet Transfer

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 3.5 # Fish Caught: 8 Fish/Hr: 2.3
 Fish Abundance: Moderate Fish Observed: Gear: Gill Net (gn)
 Hrs Set (gn): 38

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Campsites used very hard. Many 1 - 3" fish rising but few larger fish rising. No large fish seen cruising. EB female caught was spent. Fisheries appeared dead until after sundown - active then for one hour. Sunapee char captured - 2 fish.

Table 3. Alpine Lake survey data for Alpine L #A.

LAKE LOCATION

Lake Name: Alpine L #A Survey Date: 10-7-00
 IDFG Catalog #: 71630 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8800
 Section: Township: Range: Acres: 2
 UTM East: 658770 UTM North: 4881450

LAKE USE

Campsites: 0 # Firepits: 0 Litter: Trail Around Lake: Intermittent
 Trampled: Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 11 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Good frog pond - Do not Stock. Shallow <10 ft. Turbid green. Amphibian survey completed on only half of lake perimeter.

Table 4. Alpine Lake survey data for Alpine L #B.

LAKE LOCATION

Lake Name: Alpine L #B Survey Date: 10-7-00
 IDFG Catalog #: 71630 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8800
 Section: Township: Range: Acres: 2
 UTM East: 658600 UTM North: 4881600

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Redfish Lake

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 13 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake turbid with algae. Shallow <12 ft. Good frog pond. Do not stock. Amphibian survey conducted on only half of lake perimeter.

Table 5. Alpine Lake survey data for Alpine L #C.

LAKE LOCATION

Lake Name: Alpine L #C Survey Date: 10-7-00
 IDFG Catalog #: 71630 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8825
 Section: Township: Range: Acres: 2
 UTM East: 658730 UTM North: 4881860

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Redfish Lake

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 3 | Spotted Frog | 64 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Entire lake perimeter grass/bog. Shallow <10 ft. Turbid green. Abundant invertebrates. Do not stock.

Table 6. Alpine Lake survey data for Basin Cr. L #5.

LAKE LOCATION

Lake Name: Basin Cr. L #5 Survey Date: 7-16-00
 IDFG Catalog #: 71237 Primary Drainage: Lemhi River
 Secondary Drainage: Basin Cr. / Hayden Cr. County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 274300 UTM North: 4969000

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi): 4
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|----------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 2 # Fish Caught: 7 Fish/Hr: 3.5
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake is hard to gain access to - rough road. Approximately 4 to 5 cfs running into the lake. Did not walk up the creek to look at spawning habitat.

Table 7. Alpine Lake survey data for Bear Valley #3.

LAKE LOCATION

Lake Name: Bear Valley #3 Survey Date: 6-25-00
 IDFG Catalog #: 71245 Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 274050 UTM North: 4966420

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 10 Fish/Hr: 10
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake appears very shallow - looks like candidate for winterkill but fish are healthy.

Table 8. Alpine Lake survey data for Bear Valley L #1.

LAKE LOCATION

Lake Name: Bear Valley L #1 Survey Date: 6-24-00
 IDFG Catalog #: 71243 Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 273000 UTM North: 4964600

LAKE USE

Campsites: 14 # Firepits: 14 Litter: Low Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 3 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Bear Valley

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 4.25 # Fish Caught: 15 Fish/Hr: 3.5
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Ripe male rainbows - fish spawning in outlet.

Table 9. Alpine Lake survey data for Bear Valley L #2.

LAKE LOCATION

Lake Name: Bear Valley L #2 Survey Date: 6-25-00
 IDFG Catalog #: 71244 Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley Cr. County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 274000 UTM North: 4965750

LAKE USE

Campsites: 6 # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Bear Valley

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 10 Fish/Hr: 10
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lots of campsites between 1 & 2.

Table 10. Alpine Lake survey data for Bench L #1.

LAKE LOCATION

Lake Name: Bench L #1 Survey Date: 7-5-00
 IDFG Catalog #: 71594 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Bench Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 7767
 Section: Township: Range: Acres:
 UTM East: 664023 UTM North: 4886839

LAKE USE

Campsites: 4 # Firepits: 2 Litter: Low Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 4 Access Poor (mi): 0
 Access X-Country (mi): Trailhead Loc: Redfish Lodge

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 16 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 1 Fish/Hr: 2
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Tadpoles in shallows. EBT in inlet 1- 5". Shallow lake - entire perimeter lily pads. Potential winter kill lake. Connectivity to upstream lake may prevent total kill. Water hardness <20 mg/L.

Table 11. Alpine Lake survey data for Bench L #2.

LAKE LOCATION

Lake Name: Bench L #2 Survey Date: 7-5-00
 IDFG Catalog #: 71595 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Bench C/Fishhook C/Redfish L County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 7750
 Section: Township: Range: Acres:
 UTM East: 663600 UTM North: 4886650

LAKE USE

Campsites: 6 # Firepits: 4 Litter: Low Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Redfish Lodge

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------|---------------|----------|----------------------|----------|
| Western Chorus Frog | | 0 | Western Chorus Frog | 0 |
| Spotted Frog | | 1 | Spotted Frog | 0 |
| Pacific Chorus Frog | | 0 | Pacific Chorus Frog | 0 |
| Tailed Frog | | 0 | Tailed Frog | 0 |
| Western Toad | | 0 | Western Toad | 0 |
| Long Toed Salamander | | 0 | Long Toed Salamander | 0 |

Search Time (hrs.min) : 0.33

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1.5 # Fish Caught: 11 Fish/Hr: 7.3
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

2 fish examined for caecal fat - 50%+ /stomachs near full. Fish looked normal body condition. Deeper lake - N end deepest - S end most shallow. Inlet subterranean - 200 yds above lake. Migration from upstream unlikely. Outlet spawning limited. No stock.

Table 12. Alpine Lake survey data for Bench L #3.

LAKE LOCATION

Lake Name: Bench L #3 Survey Date: 7-6-00
 IDFG Catalog #: 71596 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Bench C/ sinks/ Redfish L County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663050 UTM North: 4886330

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow lake. Do not stock.

Table 13. Alpine Lake survey data for Bench L #4.

LAKE LOCATION

Lake Name: Bench L #4 Survey Date: 7-6-00
 IDFG Catalog #: 71597 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Bench C/ Fishhook C/ Redfish L County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8150
 Section: Township: Range: Acres:
 UTM East: 662672 UTM North: 4886187

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc: Redfish Lodge

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1.9 # Fish Caught: 14 Fish/Hr: 7.3
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

EBT - skinny - caecal fat <25%. Water hardness 5 - 10 mg/L. Female EBT (185 mm) Egg development - will spawn in fall. Good deep lake - steep shorelines - potential for EBT eradication. One EBT at 200 mm very emaciated. Outlet subs.

Table 14. Alpine Lake survey data for Bench L #5.

LAKE LOCATION

Lake Name: Bench L #5 Survey Date: 7-6-00
 IDFG Catalog #: 71600 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Bench C/ Fishhook C/ Redfish L County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres: 0.5
 UTM East: 662480 UTM North: 4886065

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

1/2 acre frog pond - shallow - no amphibians observed. Outlet subs.

Table 15. Alpine Lake survey data for Bench L #6.

LAKE LOCATION

Lake Name: Bench L #6 Survey Date: 7-6-00
 IDFG Catalog #: 71603 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Bench Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8664
 Section: Township: Range: Acres:
 UTM East: 662303 UTM North: 4885500

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1.75 # Fish Caught: 6 Fish/Hr: 3.4
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Caecal fat on 3 fish - 0%. Rocky basin lake - very low productivity. Small drainage. NE exposure.

Table 16. Alpine Lake survey data for Bench L #6A.

LAKE LOCATION

Lake Name: Bench L #6A Survey Date: 7-6-00
 IDFG Catalog #: 71603 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fish Hook Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8945
 Section: Township: Range: Acres:
 UTM East: 659800 UTM North: 4884700

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.75 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Nice lake - no outlet - no fish. Stock low density - once every 6 years. Just west of Heyburn - Closed system. No amphibians due to rock basin lake - north slope drainage.

Table 17. Alpine Lake survey data for Bench L #6B.

LAKE LOCATION

Lake Name: Bench L #6B Survey Date: 7-6-00
 IDFG Catalog #: 71603 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fish Hook Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 659560 UTM North: 4884550

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|--|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | | Tailed Frog | 0 |
| | Western Toad | 0 | | Western Toad | 0 |
| | Long Toed Salamander | 0 | | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Small lake. Do not stock. Lots of ice and snow still. Just west of Heyburn - closed system.

Table 18. Alpine Lake survey data for Bench L #6E.

LAKE LOCATION

Lake Name: Bench L #6E Survey Date: 7-6-00
 IDFG Catalog #: 71603 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fishhook County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 661090 UTM North: 4885980

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow lake. No fish. Just west of Heyburn.

Table 19. Alpine Lake survey data for Bench L #6F.

LAKE LOCATION

Lake Name: Bench L #6F Survey Date: 7-6-00
 IDFG Catalog #: 71603 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fishhook / Redfish L County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 661100 UTM North: 4885980

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Just west of Heyburn

Table 20. Alpine Lake survey data for Big Frog L.

LAKE LOCATION

Lake Name: Big Frog L Survey Date: 8-8-00
 IDFG Catalog #: 71385 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Little Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 696580 UTM North: 4883400

LAKE USE

Campsites: 5 # Firepits: 5 Litter: Low Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 8 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 17 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 1 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 7 # Fish Caught: 12 Fish/Hr: 1.7
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 11 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

Comments:

Heavy lily pad growth on SE end. Small CT's observed. Lots of dragon and damsel flies. Heavy grazing around lake shore and surrounding area. Cows present.

Table 21. Alpine Lake survey data for Big Frog L #A.

LAKE LOCATION

Lake Name: Big Frog L #A Survey Date: 8-9-00
 IDFG Catalog #: 71385 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Big Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 696320 UTM North: 4885100

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Trail Around Lake:
 Trampled: Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Small/shallow pond probably will freeze solid. No fish or amphibians present. Do not stock.

Table 22. Alpine Lake survey data for Buck L #1.

LAKE LOCATION

Lake Name: Buck L #1 Survey Date: 8-28-00
 IDFG Catalog #: 71239 Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley Cr. County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft): 8480
 Section: Township: Range: Acres:
 UTM East: 275601 UTM North: 4962341

LAKE USE

Campsites: 6 # Firepits: 4 Litter: Low Trail Around Lake: Complete
 Trampled: No Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: BVC off Hayden

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 10 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 2 # Fish Caught: 10 Fish/Hr: 5
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Discontinue stocking - very classic looking redband type O. mykiss. Must be good flow to support overwintering - lake is quite shallow

Table 23. Alpine Lake survey data for Buck L #1A.

LAKE LOCATION

Lake Name: Buck L #1A Survey Date: 8-29-00
 IDFG Catalog #: 71239A Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 0 UTM North: 0

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|----------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Dry lakebed. Down 6 ft from high water mark. Do not stock.

Table 24. Alpine Lake survey data for Buck L #2.

LAKE LOCATION

Lake Name: Buck L #2 Survey Date: 8-29-00
 IDFG Catalog #: 71240 Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft): 8845
 Section: Township: Range: Acres:
 UTM East: 275337 UTM North: 4962944

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.17</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 20 | Long Toed Salamander | 2 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Too shallow to support fish. Amphibian pond. Adult salamanders under every moist log. Water depth down >3 ft. Snails very abundant. Do not stock.

Table 25. Alpine Lake survey data for Buck L #3.

LAKE LOCATION

Lake Name: Buck L #3 Survey Date: 8-29-00
 IDFG Catalog #: 71241 Primary Drainage: Lemhi River
 Secondary Drainage: BVC - Hayden County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft): 8825
 Section: Township: Range: Acres:
 UTM East: 274797 UTM North: 4962734

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.75 # Fish Caught: 9 Fish/Hr: 12
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

20% of south shore w/ springs coming in. DO NOT STOCK. Plenty of natural reproduction. Definite connection w/ Buck L #2 in normal spring flows.

Table 26. Alpine Lake survey data for Buck L #4.

LAKE LOCATION

Lake Name: Buck L #4 Survey Date: 8-29-00
 IDFG Catalog #: 71242 Primary Drainage: Lemhi River
 Secondary Drainage: Bear Valley C County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft): 9478
 Section: Township: Range: Acres:
 UTM East: 274365 UTM North: 4962537

LAKE USE

Campsites: 0 # Firepits: 0 Litter: Trail Around Lake:
 Trampled: Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: BVC @ Hayden

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 4 Fish/Hr: 8
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Beautiful grayling lake - Good depth, ONLY stock grayling @ moderate rate. Do not stock anything else.

Table 27. Alpine Lake survey data for Buck L #4A.

LAKE LOCATION

Lake Name: Buck L #4A

Survey Date: 8-29-00

IDFG Catalog #: 71242A Primary Drainage: Lemhi River

Secondary Drainage: BVC @ Hayden

County: Lemhi

Land Area: Lemhi

USFS Ranger Dist: Leadore

Elevation (ft): 9496

Section: Township:

Range:

Acres:

UTM East: 274544

UTM North: 4961735

LAKE USE

Campsites: # Firepits: Litter: None

Trail Around Lake: None

Trampled: No

Access Good (mi): 4

Access Poor (mi):

Access X-Country (mi): 2

Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0

Hrs Fished:

Fish Caught:

Fish/Hr:

Fish Abundance: None

Fish Observed:

Gear: Angling

Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> | <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|-------------|------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Too shallow to support fish - about 2 ft deep average depth.

Table 28. Alpine Lake survey data for Buck L #4B.

LAKE LOCATION

Lake Name: Buck L #4B Survey Date: 8-29-00
 IDFG Catalog #: 71242B Primary Drainage: Lemhi River
 Secondary Drainage: County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 274661 UTM North: 4961825

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

18" average depth - very shallow - disappearing rapidly.

Table 29. Alpine Lake survey data for Cabin Cr. L #1.

LAKE LOCATION

Lake Name: Cabin Cr. L #1 Survey Date: 7-22-00
 IDFG Catalog #: 71499 Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 667409 UTM North: 4921888

LAKE USE

Campsites: 0 # Firepits: 0 Litter: Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------|---------------|----------|----------------------|----------|
| Western Chorus Frog | | 0 | Western Chorus Frog | 0 |
| Spotted Frog | | 0 | Spotted Frog | 0 |
| Pacific Chorus Frog | | 0 | Pacific Chorus Frog | 0 |
| Tailed Frog | | 0 | Tailed Frog | 0 |
| Western Toad | | 0 | Western Toad | 0 |
| Long Toed Salamander | | 0 | Long Toed Salamander | 0 |

Search Time (hrs.min) : 0.25

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Too shallow to support fish.

Table 30. Alpine Lake survey data for Cabin Cr. L #1A.

LAKE LOCATION

Lake Name: Cabin Cr. L #1A Survey Date: 7-22-00
 IDFG Catalog #: 71499A Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 9091
 Section: Township: Range: Acres:
 UTM East: 667218 UTM North: 4921669

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No LWD - all rock

Table 31. Alpine Lake survey data for Cabin Cr. L #3.

LAKE LOCATION

Lake Name: Cabin Cr. L #3 Survey Date: 7-20-00
 IDFG Catalog #: 71503 Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8846
 Section: Township: Range: Acres: 3
 UTM East: 667111 UTM North: 4920359

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Stock no more than 50 fry - shallow in a lot of areas. Landslides encroaching on lake. Observed one small fish jump.

Table 32. Alpine Lake survey data for Cabin Cr. L #4.

LAKE LOCATION

Lake Name: Cabin Cr. L #4 Survey Date: 7-21-00
 IDFG Catalog #: 71504 Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8330
 Section: Township: Range: Acres:
 UTM East: 668000 UTM North: 4920500

LAKE USE

Campsites: 4 # Firepits: 4 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

3 cutthroat were observed. Upper end very shallow <10ft. Not connected to upstream lakes (no fish passage). Lower end adequate depth >50% of area. Continue to stock - moderate density. Lake is named "Crimson Lake" on map.

Table 33. Alpine Lake survey data for Cabin Cr. L #5.

LAKE LOCATION

Lake Name: Cabin Cr. L #5 Survey Date: 7-21-00
 IDFG Catalog #: 71505 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8060
 Section: Township: Range: Acres:
 UTM East: 6685000 UTM North: 4920729

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow - <6 ft throughout lake. Do not stock fish.

Table 34. Alpine Lake survey data for Cabin Cr. L #6.

LAKE LOCATION

Lake Name: Cabin Cr. L #6 Survey Date: 7-21-00
 IDFG Catalog #: 71507 Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8010
 Section: Township: Range: Acres: 2
 UTM East: 66880 UTM North: 4920900

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|---------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow sink - <3 ft. Do not stock fish.

Table 35. Alpine Lake survey data for Cabin Cr. L #7.

LAKE LOCATION

Lake Name: Cabin Cr. L #7 Survey Date: 7-21-00
 IDFG Catalog #: 71508 Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8565
 Section: Township: Range: Acres:
 UTM East: 668087 UTM North: 4919925

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 3 Fish/Hr: 6
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

75% shallow <6ft. See bottom throughout lake <20ft deep. May have spring flow. Continue to stock - low density. Fish in excellent condition. All fish same year class. Heard one frog.

Table 36. Alpine Lake survey data for Cabin Cr. L #7A.

LAKE LOCATION

Lake Name: Cabin Cr. L #7A Survey Date: 7-21-00
 IDFG Catalog #: 71508 Primary Drainage: Yankee Fork River
 Secondary Drainage: Cabin Cr. County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8790
 Section: Township: Range: Acres:
 UTM East: 668324 UTM North: 4920235

LAKE USE

Campsites: 0 # Firepits: 0 Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow - <10 ft. Lake upstream from Cabin Cr. #7

Table 37. Alpine Lake survey data for Cabin Cr. Peak L #1.

LAKE LOCATION

Lake Name: Cabin Cr. Peak L #1 Survey Date: 7-20-00
 IDFG Catalog #: 71499 Primary Drainage: Yankee Fork River
 Secondary Drainage: WF Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8260
 Section: Township: Range: Acres:
 UTM East: 666125 UTM North: 4918443

LAKE USE

Campsites: 1 # Firepits: 0 Litter: Low Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 6 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.15 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Doesn't look more than 20ft deep in deepest spot. No fish observed cruising or rising - may have winter killed. Inlet was dry and outlet had lots of debris.

Table 38. Alpine Lake survey data for Cabin Cr. Peak L #2.

LAKE LOCATION

Lake Name: Cabin Cr. Peak L #2 Survey Date: 7-20-00
 IDFG Catalog #: 71488 Primary Drainage: Yankee Fork River
 Secondary Drainage: WF Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665601 UTM North: 4918788

LAKE USE

Campsites: # Firepits: Litter: Low Trail Around Lake: None
 Trampled: No Access Good (mi): 1 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|----|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 35 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow - likely winterkill. Do not stock. With (multiple) high water years this lake would support fish. Water hardness - 15 mg/L calcium carbonate.

Table 39. Alpine Lake survey data for Cabin Cr. Peak L #3.

LAKE LOCATION

Lake Name: Cabin Cr. Peak L #3 Survey Date: 7-20-00
 IDFG Catalog #: 71492 Primary Drainage: Yankee Fork River
 Secondary Drainage: WF Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8388
 Section: Township: Range: Acres:
 UTM East: 665740 UTM North: 4918799

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 1 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Hindman Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 6 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 1 Fish/Hr: 2
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed one fish rise, lost one fish. Stock moderately. Water hardness - 15 mg/L. Spawning area is intermittent.

Table 40. Alpine Lake survey data for Cabin Cr. Peak L #4.

LAKE LOCATION

Lake Name: Cabin Cr. Peak L #4 Survey Date: 7-20-00
 IDFG Catalog #: 71493 Primary Drainage: Yankee Fork River
 Secondary Drainage: WF Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 666497 UTM North: 4919870

LAKE USE

Campsites: 2 # Firepits: 2 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Hindman Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.75 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

6" and (2) 12" fish seen cruising, few fish rising. Stock at low density - probably only a few anglers per year.

Table 41. Alpine Lake survey data for China L #3.

LAKE LOCATION

Lake Name: China L #3 Survey Date: 8-9-00
 IDFG Catalog #: 70885 Primary Drainage: M Fk Salmon River
 Secondary Drainage: China Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8942
 Section: Township: Range: Acres:
 UTM East: 676167 UTM North: 4927061

LAKE USE

Campsites: 4 # Firepits: 3 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 3 Access Poor (mi):
 Access X-Country (mi): 3 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.75 # Fish Caught: 1 Fish/Hr: 1.33
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Nice deep lake. Observed 5 fish between 4 -5". One cut 14 -16" rose for fly. Stock light to moderate. Trophy potential.

Table 42. Alpine Lake survey data for China L 1.

LAKE LOCATION

Lake Name: China L 1 Survey Date: 8-9-00
 IDFG Catalog #: 70883 Primary Drainage: M Fk Salmon River
 Secondary Drainage: China County: Custer
 Land Area: Capehorn USFS Ranger Dist: middle fork Elevation (ft): 8511
 Section: Township: Range: Acres:
 UTM East: 676620 UTM North: 4927476

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.08 # Fish Caught: 4 Fish/Hr: 50
 Fish Abundance: Very High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fish Shinny. Lake must be spring fed. Do not stock.

Table 43. Alpine Lake survey data for Cove L.

LAKE LOCATION

Lake Name: Cove L Survey Date: 8-10-00
 IDFG Catalog #: 71364 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Big Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 9912
 Section: Township: Range: Acres:
 UTM East: 691238 UTM North: 4885700

LAKE USE

Campsites: 2 # Firepits: 2 Litter: None Trail Around Lake: Complete
 Trampled: No Access Good (mi): 7 Access Poor (mi): 2
 Access X-Country (mi): Trailhead Loc: Big Boulder

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>2</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 2 # Fish Caught: 3 Fish/Hr: 1.5
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 44. Alpine Lake survey data for Cove L #A.

LAKE LOCATION

Lake Name: Cove L #A Survey Date: 8-10-00
 IDFG Catalog #: 71364 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Big Boulder County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 9814
 Section: Township: Range: Acres:
 UTM East: 691733 UTM North: 4885600

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 7 Access Poor (mi): 2
 Access X-Country (mi): Trailhead Loc: Big Boulder

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min) : <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 5 Fish/Hr: 10
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 3 | 2 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 45. Alpine Lake survey data for Dairy L.

LAKE LOCATION

Lake Name: Dairy L Survey Date: 6-24-00
 IDFG Catalog #: 71263 Primary Drainage: Lemhi River
 Secondary Drainage: Big Eightmile Cr. County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 294350 UTM North: 4943650

LAKE USE

Campsites: 2 # Firepits: 2 Litter: Moderate Trail Around Lake: Complete
 Trampled: No Access Good (mi): 2 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Big Eightmile Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 1 Fish/Hr: 2
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Irrigation levee raises water about 3 ft. Irrigation headgate/pipe. Fish access creek by diversion into lake. 5 bull trout observed in lake (3 - 8"). Four wheeler road to lake.

Table 46. Alpine Lake survey data for Deer L.

LAKE LOCATION

Lake Name: Deer L Survey Date: 8-14-00
 IDFG Catalog #: 71448 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Germania Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 9500
 Section: Township: Range: Acres:
 UTM East: 690100 UTM North: 4868000

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi): 4
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-----------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Low water. No water flowing in or out. Inlet is dry. Some fish (6 - 9") were spotted.

Table 47. Alpine Lake survey data for Dioxide L.

LAKE LOCATION

Lake Name: Dioxide L Survey Date: 8-9-00
 IDFG Catalog #: 71377 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Deer C County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 9247
 Section: Township: Range: Acres:
 UTM East: 693484 UTM North: 4885238

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 8 Access Poor (mi): 1
 Access X-Country (mi): Trailhead Loc: Big Boulder Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 0.5 # Fish Caught: 1 Fish/Hr: 0.2
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 48. Alpine Lake survey data for Dutch L.

LAKE LOCATION

Lake Name: Dutch L Survey Date: 8-2-00
 IDFG Catalog #: 71155 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Thatcher Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 6980
 Section: Township: Range: Acres:
 UTM East: 646155 UTM North: 4911617

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 13 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fringe shallow with lily pads. Fairly small but could possibly support a light stocking - lot of potential to grow some big fish. No fish observed rising or cruising.

Table 49. Alpine Lake survey data for Eddy L.

LAKE LOCATION

Lake Name: Eddy L Survey Date: 7-8-00
 IDFG Catalog #: 71314 Primary Drainage: Main Salmon (Pahsimeroi – E Fk)
 Secondary Drainage: Morgan via Eddy County: Lemhi
 Land Area: Bighorn Crags USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 703750 UTM North: 4944950

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.1 # Fish Caught: 1 Fish/Hr: 10
 Fish Abundance: Moderate Fish Observed: Gear: explosives
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Many cutthroat 7-8" in lake, outlet and inlet. Mostly sediment on bottom. Small and shallow with few deep pockets.

Table 50. Alpine Lake survey data for Eddy L #A.

LAKE LOCATION

Lake Name: Eddy L #A Survey Date: 7-8-00
 IDFG Catalog #: 71314A Primary Drainage: Main Salmon (Pahsimeroi – E Fk)
 Secondary Drainage: Morgan Cr. Via Eddy Cr. County: Lemhi
 Land Area: Bighorn Crags USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 703500 UTM North: 4944770

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|----------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min) : <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Moderate Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Many small (7") CUTs in lake and outlet - officer Armbruster observation. Just above Eddy Lake.

Table 51. Alpine Lake survey data for Elk L.

LAKE LOCATION

Lake Name: Elk L Survey Date: 8-3-00
 IDFG Catalog #: 71163 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Stanley Elevation (ft): 7100
 Section: Township: Range: Acres:
 UTM East: 656250 UTM North: 4919350

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 2 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|-----|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 6 | Spotted Frog | 700 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 2 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Outlet dry. Lots of amphibians. Four 4-5" fish observed following lure. Tea colored bog. South end shallow. Potential trophy class producer. Stock lightly w/ sterile fish. Connects @ high water. Leeches. Believe large fish are present.

Table 52. Alpine Lake survey data for F 82 L.

LAKE LOCATION

Lake Name: F 82 L Survey Date: 8-3-00
 IDFG Catalog #: 71125 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Stanley Elevation (ft): 6827
 Section: Township: Range: Acres:
 UTM East: 653419 UTM North: 4917640

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Moderate Trail Around Lake: Partial
 Trampled: No Access Good (mi): 0 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Knapp Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|----------------------|---------------|----------|----------------------|----------|
| Western Chorus Frog | | 0 | Western Chorus Frog | 0 |
| Spotted Frog | | 2 | Spotted Frog | 36 |
| Pacific Chorus Frog | | 0 | Pacific Chorus Frog | 0 |
| Tailed Frog | | 0 | Tailed Frog | 0 |
| Western Toad | | 0 | Western Toad | 0 |
| Long Toed Salamander | | 0 | Long Toed Salamander | 0 |

Search Time (hrs.min): 0.5

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1.5 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow @ least 80% of area. Trickle of water in outlet - in high water year, definitely connected to Knapp. Observed 3" fish rising & 1- 11" fish. Low abundance - worry about connection to MFSR. Other 6-8" fish observed. Stock with steriles.

Table 53. Alpine Lake survey data for Goat L.

LAKE LOCATION

Lake Name: Goat L Survey Date: 8-9-00
 IDFG Catalog #: 71375 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Big Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 693742 UTM North: 4885732

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: Yes Access Good (mi): 7 Access Poor (mi):
 Access X-Country (mi): one Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|---------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 3 # Fish Caught: 1 Fish/Hr: 0.33
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Small fish observed but not captured (3")

Table 54. Alpine Lake survey data for Hansen L #2.

LAKE LOCATION

Lake Name: Hansen L #2 Survey Date: 7-1-00
 IDFG Catalog #: 71557 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 7941
 Section: Township: Range: Acres:
 UTM East: 650800 UTM North: 4896500

LAKE USE

Campsites: 4 # Firepits: 4 Litter: Low Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>1</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 2 # Fish Caught: 48 Fish/Hr: 24
 Fish Abundance: Very High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 20 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 20 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Log jam in outlet, good # of logs in lake (app. 25 logs >10 m per 100 m of shoreline). Fish observed every cast. Lake full of 120 - 140 mm fish. (7-3-00) fishing for 2.5 days, there is natural repro or stocked more frequently. Caught fish 90 - 397 mm.

Table 55. Alpine Lake survey data for Hansen L #3.

LAKE LOCATION

Lake Name: Hansen L #3 Survey Date: 7-2-00
 IDFG Catalog #: 71558 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 8102
 Section: Township: Range: Acres:
 UTM East: 650500 UTM North: 4896650

LAKE USE

Campsites: 2 # Firepits: 2 Litter: None Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.83</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 3 # Fish Caught: 5 Fish/Hr: 1.7
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Few fish in lake - lake appears really deep (deepest in chain). Fish are deep bodied - good condition, great color. 30 fish (cutts) observed that were in the 280 - 330 mm range. 2 cutthroat observed (375 - 425 mm).

Table 56. Alpine Lake survey data for Hansen L #4.

LAKE LOCATION

Lake Name: Hansen L #4 Survey Date: 7-2-00
 IDFG Catalog #: 71560 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 8520
 Section: Township: Range: Acres:
 UTM East: 650000 UTM North: 4896750

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.83</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 1 | Long Toed Salamander | 3 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lots of logs in lake. Lake appears marginal in terms of depth for over-winter survival. West end may be deep enough? However, lake is at max capacity. During low water years it will not support fish.

Table 57. Alpine Lake survey data for Hansen L #5.

LAKE LOCATION

Lake Name: Hansen L #5 Survey Date: 7-2-00
 IDFG Catalog #: 71561 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 8205
 Section: Township: Range: Acres:
 UTM East: 650500 UTM North: 4895600

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1 # Fish Caught: 18 Fish/Hr: 18
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 14 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake - spring fed (5 springs). The fish were robust / excellent condition, very large bodied with distended stomachs. Small wetland about 100 m to the north was abundant with amphibians. Counted 75 juveniles. Long toed salamander in 1 rock pile.

Table 58. Alpine Lake survey data for Hansen L #5A.

LAKE LOCATION

Lake Name: Hansen L #5A Survey Date: 7-3-00
 IDFG Catalog #: 71561 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 8303
 Section: Township: Range: Acres:
 UTM East: 650470 UTM North: 4895320

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 4 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake too shallow for fish - could see bottom all the way across. Do not stock.

Table 59. Alpine Lake survey data for Hansen L #5B.

LAKE LOCATION

Lake Name: Hansen L #5B Survey Date: 7-2-00
 IDFG Catalog #: 71561 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 8600
 Section: Township: Range: Acres:
 UTM East: 650150 UTM North: 4895700

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.75 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Too shallow for fish - max depth was 5 ft. May be nearly dry by September. Do not stock.

Table 60. Alpine Lake survey data for Hansen L #5C.

LAKE LOCATION

Lake Name: Hansen L #5C Survey Date: 7-3-00
 IDFG Catalog #: 71561C Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Stanley L. Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 8615
 Section: Township: Range: Acres:
 UTM East: 651480 UTM North: 4892400

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 7 Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc: Grandjean

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 3 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake is marginal for fish Survival. No springs or seeps. Maybe a light stocking.

Table 61. Alpine Lake survey data for Hatchet L.

LAKE LOCATION

Lake Name: Hatchet L Survey Date: 8-9-00
 IDFG Catalog #: 71390 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Little Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 8941
 Section: Township: Range: Acres:
 UTM East: 695224 UTM North: 4882344

LAKE USE

Campsites: 5 # Firepits: 5 Litter: Low Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 9 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Big Boulder Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>1</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 30 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 3 # Fish Caught: 30 Fish/Hr: 10
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 15 | 0 | 0 | 0 | 15 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Multiple amphibian larvae

Table 62. Alpine Lake survey data for Hell Roaring #12.

LAKE LOCATION

Lake Name: Hell Roaring #12 Survey Date: 7-13-00
 IDFG Catalog #: 71704 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663681 UTM North: 4874369

LAKE USE

Campsites: 1 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 5 Fish/Hr: 10
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 2 | 1 | 0 | 0 | 2 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

All fish caught in outlet - looked good. No migration upstream - waterfall. Small fish rising in lake, indication some natural reproduction. Probably needs little or no stocking. Lots of algae growth on substrate in outlet.

Table 63. Alpine Lake survey data for Hell Roaring #13.

LAKE LOCATION

Lake Name: Hell Roaring #13 Survey Date: 7-14-00
 IDFG Catalog #: 71706 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663221 UTM North: 4874551

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 3 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Not worth stocking - could not overwinter fish.

Table 64. Alpine Lake survey data for Hell Roaring #4.

LAKE LOCATION

Lake Name: Hell Roaring #4 Survey Date: 7-14-00
 IDFG Catalog #: 71690 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 9647
 Section: Township: Range: Acres:
 UTM East: 663039 UTM North: 4876745

LAKE USE

Campsites: 1 # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 4 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish observed cruising or rising. No trail or people use other than single camp. Nice - continue to stock at very light density.

Table 65. Alpine Lake survey data for Hell Roaring Lake.

LAKE LOCATION

Lake Name: Hell Roaring L Survey Date: 7-14-00
 IDFG Catalog #: 71683 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665500 UTM North: 4876400

LAKE USE

Campsites: 25 # Firepits: 25 Litter: Moderate Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 2 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: 31 Fish/Hr: 1.1
 Fish Abundance: High Fish Observed: Gear: Gill Net (gn)
 Hrs Set (gn): 29

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 7 |
| 200-249mm: | 2 | 0 | 0 | 0 | 0 | 0 | 10 |
| 250-299mm: | 8 | 0 | 0 | 0 | 0 | 0 | 1 |
| 300-349mm: | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lots of spawning tribs. Skinny fish. Do not stock.

Table 66. Alpine Lake survey data for Hell Roaring Lake #1.

LAKE LOCATION

Lake Name: Hell Roaring L #1 Survey Date: 7-14-00
 IDFG Catalog #: 71687 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664120 UTM North: 4876600

LAKE USE

Campsites: 3 # Firepits: 3 Litter: None Trail Around Lake: Intermittent
 Trampled: Yes Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.33 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Amphibian-looking areas in inlet & outlet. Couldn't access inlet (cliffs). Trails/banks well worn on E and N sides. South very steep. Fish observed rising - suspect at least 2 age classes.

Table 67. Alpine Lake survey data for Hell Roaring L #10A.

LAKE LOCATION

Lake Name: Hell Roaring L #10A Survey Date: 7-13-00
 IDFG Catalog #: 71700 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8381
 Section: Township: Range: Acres: 2
 UTM East: 664408 UTM North: 4874068

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 6 Fish/Hr: 24
 Fish Abundance: Very High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

One of many lakes/ponds between Imogene and Hell Roaring. Very froggy looking. Do not stock.

Table 68. Alpine Lake survey data for Hell Roaring L #1A.

LAKE LOCATION

Lake Name: Hell Roaring L #1A Survey Date: 7-15-00
 IDFG Catalog #: 71687 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664520 UTM North: 4876630

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Trail Around Lake: Partial
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 2 Fish/Hr: 8
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Pond barely connected (low water year). Fish cannot move up or down - major waterfalls - very steep below. Hell Roaring #1 and this area obviously well visited.

Table 69. Alpine Lake survey data for Hell Roaring L #2.

LAKE LOCATION

Lake Name: Hell Roaring L #2 Survey Date: 7-14-00
 IDFG Catalog #: 71688 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663484 UTM North: 4877050

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 3 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Plenty deep to support fish - observed 3 fish rise in 45 minutes. Two (12 - 14") fish observed cruising the north cove near outlet.
Continue to stock. 2 (205 mm) CT caught below - may be natural reproduction.

Table 70. Alpine Lake survey data for Hell Roaring L #2A.

LAKE LOCATION

Lake Name: Hell Roaring L #2A Survey Date: 7-14-00
 IDFG Catalog #: 71688 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663600 UTM North: 4877100

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 3 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 2 Fish/Hr: 8
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Both CT's were very classic looking. Probably produced from upper Lake (HR #2) No spawning in Inlet - waterfall.

Table 71. Alpine Lake survey data for Hell Roaring L #3.

LAKE LOCATION

Lake Name: Hell Roaring L #3 Survey Date: 7-14-00
 IDFG Catalog #: 71689 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 9181
 Section: Township: Range: Acres:
 UTM East: 663139 UTM North: 4876877

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 4 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Appears to be very tough to plant. Very deep and capable of supporting fish. Gravels too big to spawn in - very little flat ground.
Tall cliffs on west side. Stock at moderate density.

Table 72. Alpine Lake survey data for Hell Roaring L #6.

LAKE LOCATION

Lake Name: Hell Roaring L #6 Survey Date: 7-14-00
 IDFG Catalog #: 71694 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663720 UTM North: 4875870

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Big fissures observed in bottom. Very shallow - not a good lake to stock.

Table 73. Alpine Lake survey data for Hell Roaring L #7.

LAKE LOCATION

Lake Name: Hell Roaring L #7 Survey Date: 7-14-00
 IDFG Catalog #: 71695 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 9647
 Section: Township: Range: Acres:
 UTM East: 663239 UTM North: 4876433

LAKE USE

Campsites: 0 # Firepits: 1 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 4 Trailhead Loc: Hell Roaring

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.2</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish observed cruising or surfacing. Looks capable of supporting fish - plenty deep. Probably few visitors

Table 74. Alpine Lake survey data for Hidden L.

LAKE LOCATION

Lake Name: Hidden L Survey Date: 8-2-00
 IDFG Catalog #: 71573 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Meadow Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 7042
 Section: Township: Range: Acres:
 UTM East: 650339 UTM North: 4906220

LAKE USE

Campsites: 2 # Firepits: 3 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 1 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish observed. Ducks and lily pads present. Difficult to tell depth or make call on stocking. Appears popular for hikers/fisherman. Visit w/ locals on history. Heard tree frog but not observed. Continue stocking. Outlet is dry

Table 75. Alpine Lake survey data for Hindman L #1.

LAKE LOCATION

Lake Name: Hindman L #1 Survey Date: 7-24-00
 IDFG Catalog #: 71495 Primary Drainage: Yankee Fork River
 Secondary Drainage: W.F. Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft): 8058
 Section: Township: Range: Acres:
 UTM East: 665590 UTM North: 4916500

LAKE USE

Campsites: 7 # Firepits: 7 Litter: Moderate Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 1 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: end of road

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 7 | Spotted Frog | 1 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Moderate Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Marshy perimeter - lots of frogs. Fry observed in lake and inlet. 3+ small springs feed lake. Amphibians could easily move between lake & upper pond. Likely connected to WF Yankee F. Stock sterile RB or monitor natural CT production.

Table 76. Alpine Lake survey data for Hindman L #2.

LAKE LOCATION

Lake Name: Hindman L #2 Survey Date: 7-24-00
 IDFG Catalog #: 71496 Primary Drainage: Yankee Fork River
 Secondary Drainage: W.F. Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665555 UTM North: 4916350

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 5 | Tailed Frog | 7 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow w/ emergent vegetation - No stocking.

Table 77. Alpine Lake survey data for Hindman L #3.

LAKE LOCATION

Lake Name: Hindman L #3 Survey Date: 7-24-00
 IDFG Catalog #: 71497 Primary Drainage: Yankee Fork River
 Secondary Drainage: W.F. Yankee Fork County: Custer
 Land Area: Yankee Fork USFS Ranger Dist: Yankee Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665150 UTM North: 4916750

LAKE USE

Campsites: 0 # Firepits: 0 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 0 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Hindman Lake

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 3 | Spotted Frog | 6 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Do not stock. Very shallow (<5ft). Numerous frogs and tadpoles.

Table 80. Alpine Lake survey data for Imogene L #1A.

LAKE LOCATION

Lake Name: Imogene L #1A Survey Date: 7-14-00
 IDFG Catalog #: 71713 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Imogene / Hell Roaring County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664660 UTM North: 4873880

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Low Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 5 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 17 Fish/Hr: 34
 Fish Abundance: Very High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 100-149mm: | 6 | 0 | 0 | 0 | 0 | 0 | 4 |
| 150-199mm: | 5 | 0 | 0 | 0 | 0 | 0 | 1 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

One main creek - lots of spawning gravel. Skinny fish (4 - 8")

Table 81. Alpine Lake survey data for Imogene L #3.

LAKE LOCATION

Lake Name: Imogene L #3 Survey Date: 7-14-00
 IDFG Catalog #: 71715 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: USFS Ranger Dist: Stanley Elevation (ft): 8500
 Section: Township: Range: Acres:
 UTM East: 663350 UTM North: 4972420

LAKE USE

Campsites: 0 # Firepits: 0 Litter: Low Trail Around Lake: Partial
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 3 Fish/Hr: 3
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Imogene #4 - 50% shallow. Barrier falls above Imogene #4. Imogene #3 and #4 are connected. Stock Imogene #3 once every 6 years.

Table 82. Alpine Lake survey data for Imogene L #5.

LAKE LOCATION

Lake Name: Imogene L #5 Survey Date: 7-14-00
 IDFG Catalog #: 71718 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8600
 Section: Township: Range: Acres:
 UTM East: 662900 UTM North: 4973300

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 2 # Fish Caught: 29 Fish/Hr: 14.5
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Multiple age classes - do not stock.

Table 83. Alpine Lake survey data for Imogene L #6.

LAKE LOCATION

Lake Name: Imogene L #6 Survey Date: 7-14-00
 IDFG Catalog #: 71719 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 9000
 Section: Township: Range: Acres:
 UTM East: 662650 UTM North: 4972500

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Nice lake - deep. Very limited spawning habitat. Stock CUT's - mid density. Rock basin lake - no shallows.

Table 84. Alpine Lake survey data for Imogene L #7.

LAKE LOCATION

Lake Name: Imogene L #7 Survey Date: 7-14-00
 IDFG Catalog #: 71720 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 662150 UTM North: 4872700

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Marginal for fish - area >10 ft is less than 1/2 acre.

Table 85. Alpine Lake survey data for Imogene L #8.

LAKE LOCATION

Lake Name: Imogene L #8 Survey Date: 7-14-00
 IDFG Catalog #: 71723 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 662220 UTM North: 4873200

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow <10 ft - would not support fish. Do not stock.

Table 86. Alpine Lake survey data for Imogene L #9.

LAKE LOCATION

Lake Name: Imogene L #9 Survey Date: 7-14-00
 IDFG Catalog #: 71724 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 662360 UTM North: 4873150

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 3 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow <10 ft. Water hardness <5 mg/L

Table 87. Alpine Lake survey data for Knapp L #10.

LAKE LOCATION

Lake Name: Knapp L #10 Survey Date: 7-22-00
 IDFG Catalog #: 71174 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665718 UTM North: 4921118

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 10 | Spotted Frog | 45 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow - frog pond. Do not stock. Live channel between 9 and 10.

Table 88. Alpine Lake survey data for Knapp L #11.

LAKE LOCATION

Lake Name: Knapp L #11 Survey Date: 7-22-00
 IDFG Catalog #: 71175 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8641
 Section: Township: Range: Acres:
 UTM East: 665577 UTM North: 4921365

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 4 | Spotted Frog | 20 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow - high BOD. No fish cruising or rising. Small lake. Do not stock.

Table 89. Alpine Lake survey data for Knapp L #11 A.

LAKE LOCATION

Lake Name: Knapp L #11 A Survey Date: 7-22-00
 IDFG Catalog #: 71175 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665444 UTM North: 4921237

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

2 ponds very shallow - 4 ft. Inlet was dry.

Table 90. Alpine Lake survey data for Knapp L #12.

LAKE LOCATION

Lake Name: Knapp L #12 Survey Date: 7-22-00
 IDFG Catalog #: 71177 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8410
 Section: Township: Range: Acres:
 UTM East: 664938 UTM North: 4921398

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 2 | Spotted Frog | 20 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish - too shallow. Max depth 8 ft. High BOD. Do not stock.

Table 91. Alpine Lake survey data for Knapp L #13.

LAKE LOCATION

Lake Name: Knapp L #13 Survey Date: 7-22-00
 IDFG Catalog #: 71178 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664271 UTM North: 4921801

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

2 ft deep. Just a bog. Water level down 2 ft. Do not stock.

Table 92. Alpine Lake survey data for Knapp L #14.

LAKE LOCATION

Lake Name: Knapp L #14 Survey Date: 7-22-00
 IDFG Catalog #: 71179 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664033 UTM North: 4921872

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.75 # Fish Caught: 4 Fish/Hr: 5
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fish are fat and healthy. 2 biggest ripe males - very colorful. Lake difficult to tell depth - must be moderately deep - sun to low on horizon (2015). Outlet flows to frog pond - 100 yds.

Table 93. Alpine Lake survey data for Knapp L #14 B.

LAKE LOCATION

Lake Name: Knapp L #14 B Survey Date: 7-23-00
 IDFG Catalog #: 71179 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663570 UTM North: 4921822

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 7 | Spotted Frog | 4 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow except for middle. High BOD - unlikely to overwinter fish. Do not stock.

Table 94. Alpine Lake survey data for Knapp L #14 D.

LAKE LOCATION

Lake Name: Knapp L #14 D Survey Date: 7-22-00
 IDFG Catalog #: 71179 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663388 UTM North: 4922084

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Big insect producer. Down 4 ft - very shallow. Inlet and outlet are dry. Do not stock.

Table 95. Alpine Lake survey data for Knapp L #14A.

LAKE LOCATION

Lake Name: Knapp L #14A Survey Date: 7-22-00
 IDFG Catalog #: 71179 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664078 UTM North: 4921829

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|---------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 4 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

3 ft max depth. Both inlet and outlet are dry. Do not stock.

Table 96. Alpine Lake survey data for Knapp L #14C.

LAKE LOCATION

Lake Name: Knapp L #14C Survey Date: 7-22-00
 IDFG Catalog #: 71179C Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663500 UTM North: 4922000

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 1 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

1 to 1.5 acres. May be able to support overwintering. Lots of insects. Possibly stock lightly.

Table 97. Alpine Lake survey data for Knapp L #3.

LAKE LOCATION

Lake Name: Knapp L #3 Survey Date: 7-23-00
 IDFG Catalog #: 71164 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8157
 Section: Township: Range: Acres:
 UTM East: 664061 UTM North: 4920709

LAKE USE

Campsites: 4 # Firepits: 4 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 2 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 1 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 17 Fish/Hr: 17
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 9 | 0 | 0 | 0 | 1 | 0 | 0 |
| 200-249mm: | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Multiple size classes of fish - appears rainbow natural reproduction occurring. Water hardness 10 - 15 mg/L

Table 98. Alpine Lake survey data for Knapp L #4.

LAKE LOCATION

Lake Name: Knapp L #4 Survey Date: 7-23-00
 IDFG Catalog #: 71165 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8467
 Section: Township: Range: Acres:
 UTM East: 664420 UTM North: 4921092

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Do not stock. Water level down 4 ft. Can easily see bottom - max depth 4 ft.

Table 99. Alpine Lake survey data for Knapp L #5.

LAKE LOCATION

Lake Name: Knapp L #5 Survey Date: 7-23-00
 IDFG Catalog #: 71167 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664456 UTM North: 4920410

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 150 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish seen cruising or rising. Appears deep enough to overwinter fish. Stock lightly if stocked.

Table 100. Alpine Lake survey data for Knapp L #5A.

LAKE LOCATION

Lake Name: Knapp L #5A Survey Date: 7-23-00
 IDFG Catalog #: 71167A Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664725 UTM North: 4920440

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:
AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 1 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Amphibian pond only. Do not stock.

Table 101. Alpine Lake survey data for Knapp L #5B.

LAKE LOCATION

Lake Name: Knapp L #5B Survey Date: 7-23-00
 IDFG Catalog #: 71167B Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664767 UTM North: 4920489

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Amphibian pond only. Do not stock.

Table 102. Alpine Lake survey data for Knapp L #5C.

LAKE LOCATION

Lake Name: Knapp L #5C Survey Date: 7-23-00
 IDFG Catalog #: 71167 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664521 UTM North: 4920429

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Amphibian pond - too shallow to stock.

Table 103. Alpine Lake survey data for Knapp L #6.

LAKE LOCATION

Lake Name: Knapp L #6 Survey Date: 7-23-00
 IDFG Catalog #: 71168 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664916 UTM North: 4920776

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake: Intermittent
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-----------------------------------|----------------------|---|----------------------|-----|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 2 | Spotted Frog | 200 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.75 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed a 12", 13" and 14" cutthroat. Fish looked very healthy. Maybe both inlet and outlet could support spawning in wet years. Depth good to support fish. Stock lightly.

Table 104. Alpine Lake survey data for Knapp L #7.

LAKE LOCATION

Lake Name: Knapp L #7

Survey Date: 7-23-00

IDFG Catalog #: 71169 Primary Drainage: M Fk Salmon River

Secondary Drainage: Knapp Cr.

County: Custer

Land Area: Capehorn

USFS Ranger Dist: Middle Fork

Elevation (ft): 8343

Section: Township:

Range:

Acres:

UTM East: 665361

UTM North: 4920665

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Low

Trail Around Lake: Intermittent

Trampled: No

Access Good (mi):

Access Poor (mi):

Access X-Country (mi):

Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 9 | Spotted Frog | 7 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.75 # Fish Caught: 1 Fish/Hr: 1.33

Fish Abundance: Low

Fish Observed:

Gear: Angling

Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

Comments:

Outlet flows into nice lake, could support fish. Stock lightly. The single cutthroat caught was 490 mm

Table 105. Alpine Lake survey data for Knapp L #7A.

LAKE LOCATION

Lake Name: Knapp L #7A Survey Date: 7-23-00
 IDFG Catalog #: 71169A Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665237 UTM North: 4920888

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 4 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Would support fish - suggest stocking lightly.

Table 106. Alpine Lake survey data for Knapp L #8.

LAKE LOCATION

Lake Name: Knapp L #8 Survey Date: 7-22-00
 IDFG Catalog #: 71170 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8635
 Section: Township: Range: Acres:
 UTM East: 665996 UTM North: 4920868

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow big lake. North end has the deepest section. Unlikely able to support fish thru winter. Water level down 3 ft. No fish cruising or rising. Outlet dry to Knapp Lake #9. Do not stock.

Table 107. Alpine Lake survey data for Knapp L #9.

LAKE LOCATION

Lake Name: Knapp L #9 Survey Date: 7-22-00
 IDFG Catalog #: 71173 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Knapp Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8620
 Section: Township: Range: Acres:
 UTM East: 665856 UTM North: 4921048

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|----|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 6 | Spotted Frog | 55 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Other
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Outlet possibly suitable for spawning <1 m available. Fairly deep but probably high BOD due to sedimented bottom. No fish cruising or rising. Unlikely worth planting. Save as frog pond. Deep enough to support fish.

Table 108. Alpine Lake survey data for Lick Cr. L #1.

LAKE LOCATION

Lake Name: Lick Cr. L #1 Survey Date: 7-13-00
 IDFG Catalog #: 71312 Primary Drainage: Main Salmon (Pahsimeroi - E Fk)
 Secondary Drainage: Lick Cr. / Morgan Cr. County: Lemhi
 Land Area: Bighorn Crag USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres: 3
 UTM East: 709900 UTM North: 4961000

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:
AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 3 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

South end the deepest (12' to 18'). Could probably support small # of fish. Barren now.

Table 109. Alpine Lake survey data for Lick Cr. L #1A.

LAKE LOCATION

Lake Name: Lick Cr. L #1A Survey Date: 7-13-00
 IDFG Catalog #: 71312A Primary Drainage: Main Salmon (Pahsimeroi – E Fk)
 Secondary Drainage: Lick Cr. County: Lemhi
 Land Area: Bighorn Crags USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres: 1
 UTM East: 709870 UTM North: 4961210

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|---------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Too small to support fish.

Table 110. Alpine Lake survey data for Lightning L.

LAKE LOCATION

Lake Name: Lightning L Survey Date: 7-1-00
 IDFG Catalog #: 71680 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fourth of July Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 687300 UTM North: 4876100

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 3 # Fish Caught: 7 Fish/Hr: 2.3
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 111. Alpine Lake survey data for Little Frog L.

LAKE LOCATION

Lake Name: Little Frog L Survey Date: 8-8-00
 IDFG Catalog #: 71383 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 696754 UTM North: 4883642

LAKE USE

Campsites: 3 # Firepits: 3 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 8 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Big Boulder Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 10 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 10 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 1 # Fish Caught: 2 Fish/Hr: 2
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

90% of lakeshore line contains lily pads (3 ft from bank). Many dragon flies. 1- 3" fish caught but released before ID could be made.

Table 112. Alpine Lake survey data for Lodgepole L.

LAKE LOCATION

Lake Name: Lodgepole L Survey Date: 8-9-00
 IDFG Catalog #: 71397 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Little Boulder County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 8878
 Section: Township: Range: Acres:
 UTM East: 694274 UTM North: 4882629

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: Intermittent
 Trampled: Yes Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Big Boulder

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.3 # Fish Caught: 10 Fish/Hr: 3.3
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 113. Alpine Lake survey data for Loon Cr. L #1.

LAKE LOCATION

Lake Name: Loon Cr. L #1 Survey Date: 7-22-00
 IDFG Catalog #: 70900 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8240
 Section: Township: Range: Acres: 1
 UTM East: 666150 UTM North: 4923650

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow: do not stock; bottom visible throughout lake.

Table 114. Alpine Lake survey data for Loon Cr. L #10.

LAKE LOCATION

Lake Name: Loon Cr. L #10 Survey Date: 7-23-00
 IDFG Catalog #: 70915 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8442
 Section: Township: Range: Acres:
 UTM East: 663163 UTM North: 4925084

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow <6 ft. Do not stock. Down about 6 ft from high water mark. "Sink" lake - may dry up.

Table 115. Alpine Lake survey data for Loon Cr. L #11.

LAKE LOCATION

Lake Name: Loon Cr. L #11 Survey Date: 7-23-00
 IDFG Catalog #: 70917 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663243 UTM North: 4925579

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 2 Fish/Hr: 4
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Outlet barely a trickle but lake is full. Depth <20 ft. Continue to stock - low density. Fish very good condition.

Table 116. Alpine Lake survey data for Loon Cr. L #2.

LAKE LOCATION

Lake Name: Loon Cr. L #2 Survey Date: 7-22-00
 IDFG Catalog #: 70903 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8220
 Section: Township: Range: Acres: 1
 UTM East: 665888 UTM North: 49230602

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 25 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 25 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Deep enough for fish, but very small lake. Numerous salamanders and tadpoles. Lots of woody debris (LWD). Hardness 10 - 15 mg/L.

Table 117. Alpine Lake survey data for Loon Cr. L #3.

LAKE LOCATION

Lake Name: Loon Cr. L #3 Survey Date: 7-22-00
 IDFG Catalog #: 70904 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 664950 UTM North: 4922900

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Moderate Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Continue to stock - low density. No sign of angler use.

Table 118. Alpine Lake survey data for Loon Cr. L #5.

LAKE LOCATION

Lake Name: Loon Cr. L #5 Survey Date: 7-23-00
 IDFG Catalog #: 70907 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8410
 Section: Township: Range: Acres:
 UTM East: 664439 UTM North: 4923022

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Other
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow - <10 ft. Down about 5 ft from high water mark. May dry up. Do not stock

Table 119. Alpine Lake survey data for Loon Cr. L #6.

LAKE LOCATION

Lake Name: Loon Cr. L #6 Survey Date: 7-23-00
 IDFG Catalog #: 70908 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8420
 Section: Township: Range: Acres:
 UTM East: 664360 UTM North: 4922938

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very Shallow - <6ft. Down 3 ft from high water mark. May dry up. Do not stock.

Table 120. Alpine Lake survey data for Loon Cr. L #7.

LAKE LOCATION

Lake Name: Loon Cr. L #7 Survey Date: 7-23-00
 IDFG Catalog #: 70909 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8425
 Section: Township: Range: Acres:
 UTM East: 664278 UTM North: 4922854

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 2 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow - <10 ft. Lake down about 2 ft. Do not stock

Table 121. Alpine Lake survey data for Loon Cr. L #8.

LAKE LOCATION

Lake Name: Loon Cr. L #8 Survey Date: 7-23-00
 IDFG Catalog #: 70913 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 663919 UTM North: 4922970

LAKE USE

Campsites: # Firepits: 1 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Stock - moderate density. No live stream to Horseshoe Lake. Adequate depth for fishery. Just off main trail.

Table 122. Alpine Lake survey data for Loon Cr. L #9.

LAKE LOCATION

Lake Name: Loon Cr. L #9 Survey Date: 7-23-00
 IDFG Catalog #: 70914 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8210
 Section: Township: Range: Acres:
 UTM East: 663550 UTM North: 4924250

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No inlet/outlet. Shallow - <6 ft. Down about 4 ft from high water mark. Do not stock.

Table 123. Alpine Lake survey data for Loon Cr. L #9A.

LAKE LOCATION

Lake Name: Loon Cr. L #9A Survey Date: 7-23-00
 IDFG Catalog #: 70914A Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8250
 Section: Township: Range: Acres:
 UTM East: 663250 UTM North: 4924300

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow - vegetation all across lake (a marsh) (<3ft deep). Good elk and deer spot. Do not stock.

Table 124. Alpine Lake survey data for Loon L #2A.

LAKE LOCATION

Lake Name: Loon L #2A Survey Date: 7-22-00
 IDFG Catalog #: 70903 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Loon Creek USFS Ranger Dist: Middle Fork Elevation (ft): 8590
 Section: Township: Range: Acres:
 UTM East: 666340 UTM North: 4922272

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Very High Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 25 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

1/4 mile of outlet stream accessible for spawning. Fish up to 8" all skinny cutthroat. Overpopulation of naturally reproducing cuts.
Are these native fish? Do not stock.

Table 125. Alpine Lake survey data for lower Cramer L.

LAKE LOCATION

Lake Name: Lower Cramer L Survey Date: 10-5-00
 IDFG Catalog #: 71654 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 660846 UTM North: 4877321

LAKE USE

Campsites: # Firepits: 2 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 5 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: Fish/Hr:
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Natural reproduction. Do not stock. Shallow.

Table 126. Alpine Lake survey data for lower Cramer L #A.

LAKE LOCATION

Lake Name: Lower Cramer L #A Survey Date: 10-5-00
 IDFG Catalog #: 71654 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8108
 Section: Township: Range: Acres:
 UTM East: 660000 UTM North: 4878000

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.2 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Actually 2 lakes together. Marginal winterkill. Good amphibian habitat. Observed fry in both lakes. EBT caught in creek appeared to be spawning. Mergansers on lake (8). Do not stock.

Table 127. Alpine Lake survey data for lower Valley Cr. L.

LAKE LOCATION

Lake Name: Lower Valley Cr. L Survey Date: 8-4-00
 IDFG Catalog #: 71584 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Valley Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 656400 UTM North: 4914950

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: Yes Access Good (mi): 2 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 1 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 4 # Fish Caught: 2 Fish/Hr: 0.5
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very healthy female fish. Appears shallow - 8 ft in center. Fish unlikely to survive winter w/o wet fall. Continue stocking lightly w/ steriles. Small fish may be present. Lake down 4 ft.

Table 128. Alpine Lake survey data for Lucille L.

LAKE LOCATION

Lake Name: Lucille L Survey Date: 7-14-00
 IDFG Catalog #: 71708 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8733
 Section: Township: Range: Acres:
 UTM East: 662950 UTM North: 4874250

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 2 Fish/Hr: 2
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |

Comments:

Big fish and fry seen cruising. Manage for trophy. Trail insignificant.

Table 129. Alpine Lake survey data for Lucille L #A.

LAKE LOCATION

Lake Name: Lucille L #A Survey Date: 7-14-00
 IDFG Catalog #: 71708 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8740
 Section: Township: Range: Acres: 2
 UTM East: 663025 UTM North: 4874444

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Hell Roaring Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 3 Fish/Hr: 12
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

335 mm female - spent and skinny. 230 mm male - ripe. Fish probably from Lucille lake.

Table 130. Alpine Lake survey data for Macrae L.

LAKE LOCATION

Lake Name: Macrae L Survey Date: 8-14-00
 IDFG Catalog #: 71450 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Germania Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 9601
 Section: Township: Range: Acres:
 UTM East: 690150 UTM North: 4867910

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi): 4
 Access X-Country (mi): Trailhead Loc: Three Cabins Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1 # Fish Caught: 16 Fish/Hr: 16
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 13 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Some smaller fish observed (3-5")

Table 131. Alpine Lake survey data for Marshall L #1.

LAKE LOCATION

Lake Name: Marshall L #1 Survey Date: 6-28-00
 IDFG Catalog #: 71524 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Meadow Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 661050 UTM North: 4891220

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: # Fish Caught: 34 Fish/Hr:
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Chriss Olson (Boise, Id) - Angler Report. 34 EBT (5 - 16") - 2 days of fishing. "Lower" Marshall Lake.

Table 132. Alpine Lake survey data for Martha L.

LAKE LOCATION

Lake Name: Martha L Survey Date: 8-11-00
 IDFG Catalog #: 71569 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Elk Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 651985 UTM North: 4905170

LAKE USE

Campsites: 2 # Firepits: 2 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 1 Access Poor (mi): 0
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 3 | Spotted Frog | 1 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 1 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed Osprey nest, blue heron, ducks. No fish seen cruising or rising - may be impeded by predators. Very shallow except N end. Plant if locals indicate past survival. 3 spotted frogs seen in marsh 100 m from lake. Lake not connected.

Table 133. Alpine Lake survey data for Martha L #A.

LAKE LOCATION

Lake Name: Martha L #A Survey Date: 8-1-00
 IDFG Catalog #: 71569 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Elk Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 6876
 Section: Township: Range: Acres:
 UTM East: 651751 UTM North: 4905455

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 1 Access Poor (mi): 0
 Access X-Country (mi): Trailhead Loc: Elk Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Dry !

Table 134. Alpine Lake survey data for Martha L #B.

LAKE LOCATION

Lake Name: Martha L #B Survey Date: 8-1-00
 IDFG Catalog #: 71569 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Elk Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 6907
 Section: Township: Range: Acres:
 UTM East: 651770 UTM North: 4905813

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 1 Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc: Elk Cr. Trail

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 20 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow - nutrient rich lake. Has good depth when full. Water level down 10 ft. Do not stock.

Table 135. Alpine Lake survey data for Martha L #C.

LAKE LOCATION

Lake Name: Martha L #C Survey Date: 8-1-00
 IDFG Catalog #: 71569 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 7081
 Section: Township: Range: Acres:
 UTM East: 651320 UTM North: 4805616

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 1 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fairly shallow - big algae bloom. Fish probably wouldn't overwinter. High BOD. Can't see bottom cause of bloom.

Table 136. Alpine Lake surveys data for McDonald L #1.

LAKE LOCATION

Lake Name: McDonald L #1 Survey Date: 7-22-00
 IDFG Catalog #: 71735 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Yellow Belly Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 669400 UTM North: 4873600

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 3.5 # Fish Caught: 1 Fish/Hr: 0.3
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 137. Alpine Lake survey data for McDonald L #2.

LAKE LOCATION

Lake Name: McDonald L #2 Survey Date: 7-12-00
 IDFG Catalog #: 71736 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Pettit County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 669350 UTM North: 4872400

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 1 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Pettit Lake

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Big boggy marsh. Lake overwhelmed by vegetation. Looks like great amphibian lake. Do not stock.

Table 138. Alpine Lake survey data for Middle Cramer L.

LAKE LOCATION

Lake Name: Middle Cramer L Survey Date: 10-5-00
 IDFG Catalog #: 71655 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 660990 UTM North: 4877172

LAKE USE

Campsites: 4 # Firepits: 1 Litter: Low Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 5 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Transfer at Redfish

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.25 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake definitely connected to lower Cramer- questionable if lower lake fish can make it up to mid lake. Upper Cramer fish will survive fall to mid lake. Stock @ normal density. Observed 1 fry dart away.

Table 139. Alpine Lake survey data for Mystery L #2.

LAKE LOCATION

Lake Name: Mystery L #2 Survey Date: 8-9-00
 IDFG Catalog #: 70877 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Mystery Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8590
 Section: Township: Range: Acres:
 UTM East: 675643 UTM North: 4929084

LAKE USE

Campsites: 1 # Firepits: 2 Litter: Low Trail Around Lake: Intermittent
 Trampled: Yes Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.16</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.333 # Fish Caught: 5 Fish/Hr: 15
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 3 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Don't stock. Pretty lake. Very steep gradient outlet with numerous water slides. Downstream fish survival doubtful. Spawning area is marginal to adequate depending on water year.

Table 140. Alpine Lake survey data for Mystery L #3.

LAKE LOCATION

Lake Name: Mystery L #3 Survey Date: 8-9-00
 IDFG Catalog #: 70879 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Mystery - Loon County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 685400 UTM North: 4928400

LAKE USE

Campsites: 5 # Firepits: 3 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 2 Fish/Hr: 8
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Good depth on most of lake - water level down 18". Stock @ moderate density. 14" cutthroat saved from outlet.

Table 141. Alpine Lake survey data for Newman L.

LAKE LOCATION

Lake Name: Newman L Survey Date: 8-2-00
 IDFG Catalog #: 71154 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Capehorn Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft): 6695
 Section: Township: Range: Acres:
 UTM East: 642893 UTM North: 4912760

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 0 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: N/A

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|-----------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 2 # Fish Caught: 4 Fish/Hr: 2
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| 300-349mm: | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed 4 adult chinook (from Capehorn Cr.). Very shallow through most of lake. Do not stock - connected directly to Middle Fork Salmon River.

Table 142. Alpine Lake survey data for Nez Perce L.

LAKE LOCATION

Lake Name: Nez Perce L Survey Date: 7-2-00
 IDFG Catalog #: 71273 Primary Drainage: Lemhi River
 Secondary Drainage: Nez Perce Cr. County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 310075 UTM North: 4931000

LAKE USE

Campsites: # Firepits: Litter: Low Trail Around Lake: Partial
 Trampled: No Access Good (mi): 2 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Nez Perce Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 0 Fish/Hr: 0
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Steep inlet - no outlet. A "sink" lake. High numbers of copepods, damsel larvae, and scuds. No fish observed.

Table 143. Alpine Lake survey data for P38 L.

LAKE LOCATION

Lake Name: P38 L Survey Date: 8-3-00
 IDFG Catalog #: 71160 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Beaver Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 652588 UTM North: 4920369

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 1 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.75</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 2 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.75 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake elevation down 4 ft. Max depth 8 ft. Questionable survival. Very long lake 0.5 mile. Need water. Unlikely to support fish at present. If locals indicate past survival go ahead and stock. Outlet dry.

Table 144. Alpine Lake survey data for Phyllis L.

LAKE LOCATION

Lake Name: Phyllis L Survey Date: 7-1-00
 IDFG Catalog #: 71683 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fourth of July Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 688500 UTM North: 4876900

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish observed rising or cruising.

Table 145. Alpine Lake survey data for Pinyon L.

LAKE LOCATION

Lake Name: Pinyon L Survey Date: 8-8-00
 IDFG Catalog #: 71509 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Loon Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 665969 UTM North: 4938579

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Down 1 ft from high water mark. Amphipods present. Winter kill lake. Heavy blue green/fungus. Pond weeds / must have harder water. Do not stock.

Table 146. Alpine Lake survey data for Profile L.

LAKE LOCATION

Lake Name: Profile L Survey Date: 7-14-00
 IDFG Catalog #: 71710 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Hell Roaring Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 662500 UTM North: 4875209

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

At least 1/5 of lake w/ice or icebergs. Could have been fish - very deep nice lake. Trophy type. Stock lightly for trophy management likely - to short growing season. Outlet was covered in ice - hard to tell if and where outlet was.

Table 147. Alpine Lake survey data for Shelf L.

LAKE LOCATION

Lake Name: Shelf L Survey Date: 8-9-00
 IDFG Catalog #: 71393 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Little Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 8978
 Section: Township: Range: Acres:
 UTM East: 694729 UTM North: 4882661

LAKE USE

Campsites: 2 # Firepits: 2 Litter: None Trail Around Lake: Intermittent
 Trampled: Yes Access Good (mi): 10 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Big Boulder Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 1.5 # Fish Caught: 39 Fish/Hr: 26
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 38 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 148. Alpine Lake survey data for Six L #1.

LAKE LOCATION

Lake Name: Six L #1 Survey Date: 7-8-00
 IDFG Catalog #: 71672 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fourth of July Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 686150 UTM North: 4877500

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|---------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 1 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fish observed rising but no hits.

Table 149. Alpine Lake survey data for Six L #5.

LAKE LOCATION

Lake Name: Six L #5 Survey Date: 7-8-00
 IDFG Catalog #: 71676 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Fourth of July Cr. County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 686700 UTM North: 4876500

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 2 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Angler didn't ID which lake they fished - indicated low water levels and no fish.

Table 150. Alpine Lake survey data for Slide Rock L.

LAKE LOCATION

Lake Name: Slide Rock L Survey Date: 8-9-00
 IDFG Catalog #: 71395 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft): 8978
 Section: Township: Range: Acres:
 UTM East: 694417 UTM North: 4882466

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Low Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 10 Access Poor (mi): 0
 Access X-Country (mi): Trailhead Loc: Big Boulder Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>1</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 5 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 2 # Fish Caught: 21 Fish/Hr: 10.5
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 20 | 0 | 0 | 0 | 1 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 151. Alpine Lake survey data for Tango L #2.

LAKE LOCATION

Lake Name: Tango L #2 Survey Date: 7-21-00
 IDFG Catalog #: 70889 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Tango Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8763
 Section: Township: Range: Acres:
 UTM East: 667635 UTM North: 4924319

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.15 # Fish Caught: 1 Fish/Hr: 6.7
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Stock lightly. Observed 3 different sizes (2", 6", 12") but low abundance. Nice lake - tough to get to. Redds appeared to be built along the shoreline near the outlet. Lake appears deep.

Table 154. Alpine Lake survey data for Tango L #5.

LAKE LOCATION

Lake Name: Tango L #5 Survey Date: 7-21-00
 IDFG Catalog #: 70894 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Tango Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8448
 Section: Township: Range: Acres:
 UTM East: 667751 UTM North: 4923156

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: Partial
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.1 # Fish Caught: 3 Fish/Hr: 30
 Fish Abundance: High Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Inlet and outlet contain spawning gravels. Adequate reproduction - do not stock. Fish are slender. Observed fry.

Table 155. Alpine Lake survey data for Tango L #6.

LAKE LOCATION

Lake Name: Tango L #6 Survey Date: 7-21-00
 IDFG Catalog #: 70895 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Tango Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8649
 Section: Township: Range: Acres:
 UTM East: 667527 UTM North: 4922786

LAKE USE

Campsites: 1 # Firepits: 1 Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 4 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.33 # Fish Caught: 1 Fish/Hr: 3
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Water hardness - 5-10 mg/L. Continue to stock - low density. Size class 100-mm fish was observed.

Table 156. Alpine Lake survey data for Tango L #7.

LAKE LOCATION

Lake Name: Tango L #7 Survey Date: 7-21-00
 IDFG Catalog #: 70898 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Tango/Loon/MF County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 8400
 Section: Township: Range: Acres:
 UTM East: 668250 UTM North: 4922400

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow lake - bottom visible across lake. Lake not sampled. Do not stock.

Table 157. Alpine Lake survey data for Thunder L.

LAKE LOCATION

Lake Name: Thunder L Survey Date: 7-8-00
 IDFG Catalog #: 71679 Primary Drainage: Main Salmon (N Fk - Lemhi)
 Secondary Drainage: Fourth of July County: Custer
 Land Area: SNRA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 687575 UTM North: 4876800

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

No fish at all observed in the lake.

Table 158. Alpine Lake survey data for upper Cramer L.

LAKE LOCATION

Lake Name: Upper Cramer L Survey Date: 10-5-00
 IDFG Catalog #: 71657 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 661171 UTM North: 4876968

LAKE USE

Campsites: 5 # Firepits: 3 Litter: Low Trail Around Lake: Partial
 Trampled: Yes Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Transfer @ Redfish

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.33 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Continue to stock at normal density. Only upper two Cramer lakes. Lower lakes very shallow w/ EBT.

Table 159. Alpine Lake survey data for upper Cramer L #A.

LAKE LOCATION

Lake Name: Upper Cramer L #A Survey Date: 10-5-00
 IDFG Catalog #: 71657 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 661112 UTM North: 4875801

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Transfer @ Redfish

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.08</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 0 Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Depth at NW end likely enough to support overwintering. Do not stock

Table 160. Alpine Lake survey data for upper Redfish L #1.

LAKE LOCATION

Lake Name: Upper Redfish L #1 Survey Date: 10-6-00
 IDFG Catalog #: 71634 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8663
 Section: Township: Range: Acres:
 UTM East: 657401 UTM North: 4878790

LAKE USE

Campsites: 0 # Firepits: 0 Litter: None Trail Around Lake: Partial
 Trampled: No Access Good (mi): 5 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Redfish Lake Transfer Camp

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.5 # Fish Caught: 2 Fish/Hr: 4
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed 5 (10 - 12") fish cruising. Continue to stock at low density. Consider once every 6 years. Amphibian habitat on 15% of shoreline.

Table 161. Alpine Lake survey data for upper Redfish L #2.

LAKE LOCATION

Lake Name: Upper Redfish L #2 Survey Date: 10-6-00
 IDFG Catalog #: 71635 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 8706
 Section: Township: Range: Acres:
 UTM East: 657357 UTM North: 4878561

LAKE USE

Campsites: 1 # Firepits: 0 Litter: Low Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Redfish Lake Transfer

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 0.75 # Fish Caught: 5 Fish/Hr: 6.6
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Possible natural reproduction. Stock at very low density. Consider 1 every 6 year rotation. Stocking on top of any substantial natural reproduction could ruin the size / condition of the fish.

Table 162. Alpine Lake survey data for upper Redfish L #3.

LAKE LOCATION

Lake Name: Upper Redfish L #3 Survey Date: 10-6-00
 IDFG Catalog #: 71636 Primary Drainage: Main Salmon (Yankee Fk - Headwaters)
 Secondary Drainage: Redfish Lake Cr. County: Custer
 Land Area: SWA USFS Ranger Dist: Stanley Elevation (ft): 9064
 Section: Township: Range: Acres:
 UTM East: 657488 UTM North: 4877801

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Partial
 Trampled: No Access Good (mi): 7 Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 2 Hrs Fished: 2.33 # Fish Caught: 22 Fish/Hr: 9.6
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fry observed in lake. Excellent fishing. Stock at low densities. The whole series of Redfish lakes could possibly be stocked every 6 years.

Table 163. Alpine Lake survey data for Vanity L #1.

LAKE LOCATION

Lake Name: Vanity L #1 Survey Date: 7-30-00
 IDFG Catalog #: 71009 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Vanity Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 7872
 Section: Township: Range: Acres:
 UTM East: 654880 UTM North: 4928320

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed four (5"), eight (10"), and one (12") cutthroat cruising.

Table 164. Alpine Lake survey data for Vanity L #10.

LAKE LOCATION

Lake Name: Vanity L #10 Survey Date: 7-29-00
 IDFG Catalog #: 71023 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Vanity Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 653470 UTM North: 4927750

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Shallow. Didn't see any fish cruising or rising. Didn't spend much time looking.

Table 165. Alpine Lake survey data for Vanity L #2.

LAKE LOCATION

Lake Name: Vanity L #2 Survey Date: 7-30-00
 IDFG Catalog #: 71010 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Vanity Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 654550 UTM North: 4928150

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow pond. A few larger fish observed. Assumed fall back from vanity #4. Do not stock.

Table 166. Alpine Lake survey data for Vanity L #3.

LAKE LOCATION

Lake Name: Vanity L #3 Survey Date: 7-30-00
 IDFG Catalog #: 71013 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Vanity Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 654650 UTM North: 4928000

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: Fish Observed: Gear:
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow. Do not stock!

Table 167. Alpine Lake survey data for Vanity L #6.

LAKE LOCATION

Lake Name: Vanity L #6 Survey Date: 7-29-00
 IDFG Catalog #: 71016 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Vanity Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft): 7975
 Section: Township: Range: Acres:
 UTM East: 654100 UTM North: 4927700

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 2 # Fish Caught: 14 Fish/Hr: 7
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Good active fishing.

Table 168. Alpine Lake survey data for Vanity L #7.

LAKE LOCATION

Lake Name: Vanity L #7 Survey Date: 7-29-00
 IDFG Catalog #: 71017 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Vanity Cr. County: Custer
 Land Area: Capehorn USFS Ranger Dist: Middle Fork Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 653900 UTM North: 4927350

LAKE USE

Campsites: # Firepits: Litter: Trail Around Lake:
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 2 # Fish Caught: 6 Fish/Hr: 3
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Fish appeared to be in good condition.

Table 169. Alpine Lake survey data for W. F. Morgan Cr. L #1.

LAKE LOCATION

Lake Name: W. F. Morgan Cr. L #1 Survey Date: 9-13-00
 IDFG Catalog #: 71309 Primary Drainage: Main Salmon (Pahsimeroi – E Fk)
 Secondary Drainage: W.F. Morgan Cr. County: Custer
 Land Area: Challis USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 706800 UTM North: 4956350

LAKE USE

Campsites: 1 # Firepits: 1 Litter: Moderate Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.33</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.5 # Fish Caught: 4 Fish/Hr: 8
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Very shallow lake - surprised it supports fish. Must be adequate inlet flows to overwinter fish. Observed only 2 sizes of fish. May be self sustaining in inlet and outlet streams. Continue to provide fishery. Question further stocking.

Table 170. Alpine Lake survey data for W.F. Morgan Cr. L #2.

LAKE LOCATION

Lake Name: W.F. Morgan Cr. L #2 Survey Date: 9-12-00
 IDFG Catalog #: 71310 Primary Drainage: Main Salmon (Pahsimeroi – E Fk)
 Secondary Drainage: W. F. Morgan Cr. County: Custer
 Land Area: Challis USFS Ranger Dist: Challis Elevation (ft): 8463
 Section: Township: Range: Acres:
 UTM East: 706344 UTM North: 4956495

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: Intermittent
 Trampled: No Access Good (mi): 4 Access Poor (mi):
 Access X-Country (mi): 0 Trailhead Loc:

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | # | <u>Juveniles</u> | # |
|------------------------------------|----------------------|---|----------------------|---|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 1 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 1 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.25 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Lake very shallow. Doesn't appear to have fish. Would not stock unless local C.O. indicates past survival. Inlet and outlet could support spawning at increased water levels - debris jams currently inhibit movement. If fish present- not apparent.

Table 171. Alpine Lake survey data for White Goat L.

LAKE LOCATION

Lake Name: White Goat L Survey Date: 9-12-00
 IDFG Catalog #: 70839 Primary Drainage: M Fk Salmon River
 Secondary Drainage: Camas Cr. County: Lemhi
 Land Area: Sleeping Deer USFS Ranger Dist: Middle Fork Elevation (ft): 8805
 Section: Township: Range: Acres:
 UTM East: 704789 UTM North: 4955668

LAKE USE

Campsites: 4 # Firepits: 4 Litter: Moderate Trail Around Lake: Complete
 Trampled: Access Good (mi): 6 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: West Fork Morgan Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|-----------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.5</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 1 Hrs Fished: 0.33 # Fish Caught: 0 Fish/Hr:
 Fish Abundance: Low Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Observed very large (>20") fish cruising at surface. Observed no other fish cruising or rising. Nice deep lake. Heavily used - need to stock at low density.

Table 172. Alpine Lake survey data for Willow L.

LAKE LOCATION

Lake Name: Willow L Survey Date: 8-9-00
 IDFG Catalog #: 71388 Primary Drainage: E Fk Salmon River
 Secondary Drainage: Little Boulder Cr. County: Custer
 Land Area: White Clouds USFS Ranger Dist: Challis Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 695327 UTM North: 488292

LAKE USE

Campsites: 2 # Firepits: 2 Litter: Low Trail Around Lake: Complete
 Trampled: Yes Access Good (mi): 9 Access Poor (mi):
 Access X-Country (mi): Trailhead Loc: Big Boulder Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|------------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0.25</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 1 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: 3 Hrs Fished: 1 # Fish Caught: 16 Fish/Hr: 16
 Fish Abundance: Moderate Fish Observed: Gear: Angling
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 100-149mm: | 12 | 1 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Table 173. Alpine Lake survey data for Wright L.

LAKE LOCATION

Lake Name: Wright L Survey Date: 6-25-00
 IDFG Catalog #: 71246 Primary Drainage: Lemhi River
 Secondary Drainage: Hayden/BVC/Wright County: Lemhi
 Land Area: Lemhi USFS Ranger Dist: Leadore Elevation (ft):
 Section: Township: Range: Acres:
 UTM East: 275400 UTM North: 4958450

LAKE USE

Campsites: # Firepits: Litter: None Trail Around Lake: None
 Trampled: Access Good (mi): Access Poor (mi):
 Access X-Country (mi): 2 Trailhead Loc: Kadletz Cr.

AMPHIBIAN SURVEY DATA

| | <u>Adults</u> | <u>#</u> | <u>Juveniles</u> | <u>#</u> |
|---------------------------------|----------------------|----------|----------------------|----------|
| Search Time (hrs.min): <u>0</u> | Western Chorus Frog | 0 | Western Chorus Frog | 0 |
| | Spotted Frog | 0 | Spotted Frog | 0 |
| | Pacific Chorus Frog | 0 | Pacific Chorus Frog | 0 |
| | Tailed Frog | 0 | Tailed Frog | 0 |
| | Western Toad | 0 | Western Toad | 0 |
| | Long Toed Salamander | 0 | Long Toed Salamander | 0 |

FISHERY AND FISH POPULATIONS

Anglers: Hrs Fished: # Fish Caught: Fish/Hr:
 Fish Abundance: None Fish Observed: Gear: Visual
 Hrs Set (gn):

(Length Frequency)

| <u>LENGTH</u> | <u>RBT</u> | <u>CUT</u> | <u>GNT</u> | <u>BLT</u> | <u>RBTx</u> <u>CUT</u> | <u>GRL</u> | <u>EBT</u> |
|---------------|------------|------------|------------|------------|---------------------------|------------|------------|
| 0-49mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50-99mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 100-149mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150-199mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 200-249mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 250-299mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 300-349mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 350-399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| >399mm: | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

Too shallow - bottom visible throughout lake. Rocky basin. Lake likely freezes to bottom. No amphibians observed. Do not stock.

2000 ANNUAL PERFORMANCE REPORT

State of: Idaho

Program: Fisheries Management

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: b¹

Title: Lowland Lake Investigations
- Mosquito Flats Reservoir

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

We used gill nets to survey the fish communities in Mosquito Flats Reservoir on August 16, 2000. Rainbow trout *Oncorhynchus mykiss* comprised 88% of the catch, followed by brook trout *Salvelinus fontinalis* (8%), bull trout *S. confluentus* (3%), and westslope cutthroat trout *O. clarki lewisi* (1%).

The zooplankton community in Mosquito Flats Reservoir was sampled on August 16, 2000 to determine the status of zooplankton resources for fish forage. ZPR and ZQI estimates for the reservoir were .06 and .01, respectively. These data suggest the forage resources for the reservoir are limiting and stocking should be adjusted accordingly.

Authors:

Arnie Brimmer
Regional Fishery Biologist

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

INTRODUCTION

Mosquito Flats Reservoir is located on Challis Creek 16.1 kilometers west of Challis, Idaho, and stores 793 acre-feet of irrigation water. The reservoir was built in 1954 and is a popular fishery with local residents. The Idaho Department of Fish and Game (IDFG) has water rights to 28% of the storage, reserved as a minimum pool. This represents a 222 acre-foot pool with a surface area of approximately 8.5 ha.

METHODS

Two experimental gill nets, one floating and one sinking, were deployed the evening of August 16, 2000 and removed the next morning. Gill nets were set perpendicular to the shore. Caecal fat was examined on rainbow trout *Oncorhynchus mykiss* to determine the health of resident fish.

Zooplankton were sampled using methods outlined by Teuscher (1999). After laboratory procedures, zooplankton abundance and quality was analyzed using ZPR and ZQI methods developed by the Wyoming Game and Fish (Dan Yule, Wyoming Game and Fish, unpublished data) and Teuscher (1999).

RESULTS AND DISCUSSION

The experimental floating gill net captured 86 rainbow trout, 12 brook trout *Salvelinus fontinalis*, 2 bull trout *S. confluentus* and 1 cutthroat trout *O. clarki lewisi*. The net was fished a total of 16.25 diel hours and had a capture rate of 6.2 fish/hour.

The experimental sinking gill net captured 34 rainbow trout and one bull trout. The net was fished a total of 16.25 diel hours and had a capture rate of 2.2 fish/hour. Caecal fat was examined on five of the captured rainbow trout. There was no caecal fat on any of the fish we examined.

Four species of fish were identified from Mosquito Flats Reservoir. Rainbow trout comprised 88% of the total number of fish captured, followed by brook trout (8%), bull trout (3%), and cutthroat trout (1%), respectively. The largest fish encountered were bull trout with a mean total length of 262 mm. Rainbow trout had an average total length of 240.9 mm (median-226 mm) while brook trout had a mean total length of 203.8 mm (median-198 mm). The only cutthroat trout captured had a total length of 250 mm.

In 1992, IDFG personnel collected 272 trout from Mosquito Flats Reservoir. Brook trout comprised 90% of all fish captured and had a mean length of 191 mm. Rainbow trout comprised only 10% of all trout captured and had an average length of 279 mm. For 1996, data shows a significant swing in fish species composition. The brook trout population has decreased to comprise only 36% of the fish captured and decreased in average length to 164 mm. Rainbow trout comprised the rest of the catch. In 2000, the rainbow trout comprised 88% of the fish captured with an average length of 240.9 mm. Brook trout comprised 8% of the total catch; however, the average length has increased to 203.8 mm. Since 1992, the brook trout

population in Mosquito Flats Reservoir has decreased 82% while the rainbow trout population has increased by 78% (Figure 1).

Results from the zooplankton ZPR and ZQI indices were .06 and .01, respectively. These estimates suggest that either the reservoir has limited zooplankton forage resources or the reservoir is over-stocked. In 2001, fingerling releases were curtailed to determine if zooplankton numbers or size increased appreciably. Sampling for zooplankton will continue this upcoming summer to record any changes.

Although bull trout and cutthroat trout have not been sampled from the reservoir previously, we believe their presence to be transitory. Both species have been documented in Challis Creek above the reservoir. It is likely the bull trout and cutthroat trout we sampled in 2000 originated from Challis Creek. Therefore, we anticipate no change in current management for Mosquito Flats Reservoir.

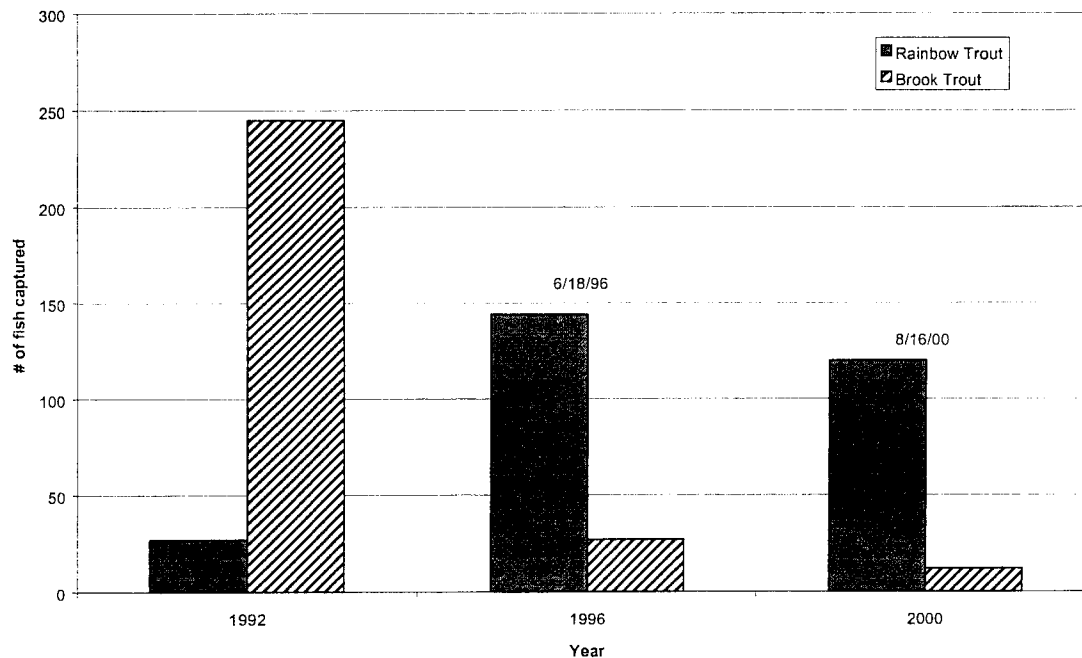


Figure 1. Number and species of fish captured from Mosquito Flats Reservoir, Idaho, during 1992, 1996, and 2000.

LITERATURE CITED

Teuscher, M. D. 1999. Hatchery trout evaluations. Idaho Department of Fish and Game, Federal Aid in Fish Restoration, F-73-R-21, Annual Progress Report, Boise.

2000 ANNUAL PERFORMANCE REPORT

State of: Idaho

Program: Fisheries Management

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: b²

Title: Lowland Lake Investigations - Williams Lake

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

On October 23, 2000, fish communities in Williams Lake were surveyed with the use of gill nets. Rainbow trout *Oncorhynchus mykiss* and bull trout *Salvelinus confluentus* were the only species captured from the lake, with rainbow trout comprising 91% of the catch (10 of 11).

On June 20 and 21 and August 21, 2000 project personnel used hydro-acoustic equipment to map the contours of Williams Lake and to derive fish population estimates. During June, we estimated there was a total of 1,800 trout residing in Williams Lake. However, the August survey produced a population estimate of 5,500 fish. The August population estimate was higher than the June estimate due to an influx of small trout (<200 mm).

The Williams Lake zooplankton community was sampled in August to determine the lake's potential in relation to fish yield. We found that zooplankton densities are not limiting fish yield in the lake.

Authors:

Tom Curet
Regional Fishery Biologist

Arnie Brimmer
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

Rebecca Andersen
Fishery Technician

INTRODUCTION

Williams Lake, a mesotrophic lake, is located in northcentral Lemhi County at 1,600 m elevation. The surface area is 73 ha, maximum depth is 56 m, and mean depth is 23 m. The principle inflow is provided by Lake Creek, with some inflow originating from springs and intermittent streams. Rainbow trout *Oncorhynchus mykiss* and bull trout *Salvelinus confluentus* are the only fish species recorded from the lake.

Over the past few years, there has been a reduction in both fish survival and fish harvested from Williams Lake. We believe these reductions to be the result of low dissolved oxygen concentrations in the lake. For example, winter dissolved oxygen concentrations fall below 5 mg/L within 2-4 m of the surface. In summer and winter, dissolved oxygen concentrations of 1 mg/L occur as shallow as 8 m. These low dissolved oxygen levels are limiting the available fish habitat and therefore, are limiting the fish production potential of the lake. Furthermore, these low oxygen levels have been responsible for past fish kills in the lake. Water quality degradation in the lake is caused by nutrient input from eroded sediments from the watershed and the leaching of human waste from private septic systems around the lake.

OBJECTIVES

1. Monitor the fishery's species composition and size structure.
2. Derive population and size structure estimates using hydro-acoustic equipment.
3. Determine the status of the zooplankton community and its suitability for forage.

METHODS

October 23, 2000 we used three 1.8 x 38 m experimental mesh gill nets to sample the fish community in Williams Lake. Project personnel set gill nets perpendicular to the shoreline with the large mesh end of the net positioned towards the middle of the lake. The nets were checked and fish were measured and released on half-hour intervals to minimize mortality. We set the nets at approximately 1400 and removed them the same day at 1700.

Hydro-acoustic gear was used on June 20 and 21 and again on August 21, 2000 to gather physical and biological information on Williams Lake. The data we collected was used to map the lake and to determine at what depths the fish reside. We also measured water temperature and oxygen concentrations at various locations.

Zooplankton were sampled using methods outlined by Teuscher (1999). After laboratory procedures, zooplankton abundance and quality were analyzed using ZPR and ZQI methods developed by the Wyoming Game and Fish (Dan Yule, Wyoming Game and Fish, unpublished data) and Teuscher (1999).

RESULTS

We captured 11 fish during 9.0 gill net hours. Overall catch rates averaged 1.2 fish/hour. Total lengths of the ten rainbow trout caught ranged in size from 180 to 430 mm (total length: TL) with an average TL of 314.5 mm. The single bull trout captured had a TL of 378 mm (Table 1).

Table 1. Results of gill net surveys in Williams Lake, 1996 and 2000.

| | 1996 | 2000 |
|---|----------------------------------|----------------------------------|
| Date | 6/14 | 10/23 |
| Numbers captured | Rainbow trout 42 Bull trout 4 | Rainbow trout 10 Bull trout 1 |
| Size range (mm) Rainbow trout | 140-500 | 180-430 |
| Mean total length (mm) Rainbow trout | 271 | 314.5 |
| Size range (mm) Bull trout | 205-455 | 378 |
| Mean total length (mm) Bull trout | 295 | 378 |
| Total gill net hours | 26.3 | 7.0 |
| Fish/hour | 1.67 | 1.22 |

The Echo-Sounder survey reiterated that the bulk of fish in Williams Lake reside within the top 10 to 12 meters. In comparing the depths of fish locations and the amount of dissolved oxygen at those depths, it is evident that the fish are restricted by the lack of dissolved oxygen at increased depths. On average, the dissolved oxygen decreased at a rate of approximately 1.8 mg/L/m. Temperature of the water did not appear to be a significant environmental factor. The surface temperature was generally recorded at 18°C. Temperatures decreased as the depth increased at a rate of approximately 1.1°C/m. See Appendix A for temperature and dissolved oxygen levels.

Results from the zooplankton ZPR and ZQI indices were .85 and .67, respectively. These estimates suggest that competition for food is unlikely. We will continue to monitor the zooplankton community to evaluate the population over time.

DISCUSSION

We compared this year's netting data with the 1996 data in order to determine if there has been an increase or decrease in the size structure of the fish population in the lake. The 2000 gillnetting data showed an average rainbow trout length of 314.5 mm, an increase of 43.5 mm over the average length of 271 mm for the same species in 1996. The average bull trout length is difficult to compare with 1996 because there was only one bull trout gillnetted this year. However, the average length in 1996 was 333 mm (lengths ranging from 205-455 mm). The single bull trout captured this year was 378 mm.

Pressure from local anglers has increased over the years, prompting the Department to discontinue wild trout management in the lake and to reinitiate the stocking program. On May 12, 2000, fifteen actively spawning rainbow trout were briefly removed and anesthetized from Lake Creek, a tributary to Williams Lake, by project personnel and volunteers. Approximately 15,000 eggs were stripped and fertilized from these adults. The hand-spawned adults were released back into Lake Creek unharmed. The eggs were incubated in a hatchery located on Lake Creek below the earthen dam of Williams Lake. Because of these efforts, approximately 15,000 juveniles were released into Williams Lake.

LITERATURE CITED

Teuscher, M. D. 1999. Hatchery trout evaluations. Idaho Department of Fish and Game, Federal Aid in Fish Restoration, F-73-R-21, Annual Progress Report, Boise.

APPENDIX

Appendix A. Williams Lake at inlet.

| Lake depth (m) | Water Temperature (°C) | Dissolved Oxygen(mg/L) |
|----------------|------------------------|------------------------|
| 0 | 19 | 9.1 |
| 9 | | 4.5 |
| 10 | | 5.0 |
| 12 | | 2.7 |
| 16 | | 1.9 |

Williams Lake at Boat Dock

| Lake depth (m) | Water Temperature (°C) | Dissolved Oxygen (mg/L) |
|----------------|------------------------|-------------------------|
| 1 | 18 | 9.1 |
| 8 | 12 | 8.1 |
| 10 | 9 | 5.0 |
| 13 | 6 | 2.1 |

Williams Lake in the Middle

| Lake depth (m) | Water Temperature (°C) | Dissolved Oxygen (mg/L) |
|----------------|------------------------|-------------------------|
| 1 | 18 | 9.6 |
| 7 | 16 | 9.4 |
| 8 | 13 | 8.5 |
| 10 | 9 | 4.9 |
| 13 | 6 | 2.5 |

Williams Lake at Dam

| Lake depth (m) | Water Temperature (°C) | Dissolved Oxygen (mg/L) |
|----------------|------------------------|-------------------------|
| 1 | 18.5 | 9.4 |
| 8 | 13 | 8.1 |
| 10 | 9 | 3.8 |
| 13 | 6 | 2.6 |

2000 ANNUAL PERFORMANCE REPORT

State Of: Idaho

Program: Fisheries Management

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: b³

Title: Lowland Lake Investigations - Alturas Lake

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

In an effort to control the kokanee salmon *Oncorhynchus nerka* population of Alturas Lake, Idaho, we constructed a weir across Alturas Lake Creek to prevent upstream passage of adult kokanee spawners. We believe our efforts were successful since no kokanee spawners were observed above the weir.

Authors:

Arnie Brimmer
Regional Fishery Biologist

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

INTRODUCTION

In the early summer of 2000, the Shoshone Bannock Tribes (SBT) fisheries staff informed Idaho Department of Fish and Game (IDFG) that the SBT fisheries inventory of Alturas Lake indicated the fall spawning run of kokanee *Oncorhynchus nerka* would be large. Concerns have been raised regarding the impact of excessive kokanee production on the zooplankton community in Alturas Lake. It has been documented that when kokanee numbers are high, zooplankton production declines. This is an important relationship since kokanee rely heavily on zooplankton as food.

In an effort to stabilize and decrease the magnitude of the zooplankton/kokanee population swings, we implemented adult kokanee population control measures on Alturas Lake Creek during the late summer of 2000.

METHODS

On August 17, 2000 a picket weir with 14 mm openings was deployed in Alturas Lake Creek approximately 800 m upstream of the inlet of the lake. To prevent either kokanee or bull trout *Salvelinus confluentus* from becoming impinged or injured on the face of the weir it was padded with 15-mm nylon mesh. A 1.2-m wide portion of the weir was lowered to a height of .6 m in the thalweg of the stream to allow bull trout a jump site and safe passage upstream of the weir but to prevent kokanee from successfully clearing the barrier.

The lower 100-150 mm upstream face of the weir was additionally screened with 5 mm mesh and covered with rock to prevent downcutting below the pickets and to ensure all smaller escape routes were effectively blocked.

The weir was checked daily to prevent debris buildup and to document the presence of fish being obstructed. On four dates the area from the area immediately below the weir to the inlet of the lake was surveyed to approximate the total number of fish being to detained.

The weir was removed on September 7, 2000 after the peak movement of adult kokanee appeared to be complete.

RESULTS AND DISCUSSION

Table 1 displays the results of the surveys of fish conducted below the weir. The large number of adult kokanee spawners expected to return to Alturas Lake Creek did not occur. We believe the population estimate derived by the SBT fisheries staff was in error. However, the endeavor was beneficial nonetheless.

Table 1. Results of fish surveys conducted below the experimental weir installed on Alturas Lake Creek, Idaho, during the late summer of 2000.

| Date | No. kokanee | No. bull trout | Comments |
|-------|-------------|----------------|---|
| 8/10 | 425 | 2 | No spawning activity |
| 8/30 | 398 | 2 | Fish spawning – one bull trout above weir |
| 9/6 | 225 | 2 | Spawning activity slowing |
| 9/7 | 209 | 0 | Spawning activity slowing |
| Total | 1,257 | 6 | |

We were unsure how effectively the weir would function and whether bull trout would be able to successfully negotiate the jump slot. On several occasions large bull trout were observed below the weir during daily weir maintenance. The following day no bull trout were observed downstream of the weir. However, bull trout of the same size were observed upstream the next day, an indication that passage was occurring. No kokanee were observed above the weir throughout the study period.

RECOMMENDATIONS

1. Develop more accurate techniques to determine the approximate number of adult kokanee expected to return to Alturas Lake Creek.
2. Coordinate efforts with the IDFG sockeye research team to determine suitable escapement levels for kokanee above the weir.
3. Coordinate and develop an Alturas Lake Management Plan with interested federal and state agencies.

2000 ANNUAL PERFORMANCE REPORT

State of: Idaho

Program: Fishery Management F-71-R-24

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: c¹

Title: Rivers and Stream Investigations

- Wild Trout Population Surveys

- Big Springs Creek

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

Project personnel conducted rainbow trout *Oncorhynchus mykiss* spawning ground surveys on the upper Lemhi River and Big Springs Creek (tributary to the Lemhi River) to monitor the effects of fishing regulation changes and habitat improvement projects sponsored by the upper Salmon Basin Watershed Project. On April 5, 2001 we counted a total of 283 redds, which was slightly lower than the number we observed in 2000 (306). We believe the decrease in the number of redds counted 2001 was an artifact of spawning timing and when the survey was conducted rather than a negative change in fish numbers or habitat conditions.

Authors:

Arnie Brimmer
Regional Fishery Biologist

Rebecca M. Andersen
Regional Fishery Technician

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

OBJECTIVE

Evaluate the effects of harvest restrictions and habitat improvement efforts on resident rainbow trout *Oncorhynchus mykiss* spawning effort in the upper Lemhi River and Big Springs Creek .

STUDY AREA AND METHODS

In 1994 the Idaho Department of Fish and Game initiated informal resident rainbow trout redd count surveys on Big Springs Creek (BSC), a tributary to the upper Lemhi River near Leadore, Idaho. We established three transect areas in 1997 to monitor long term resident rainbow trout population trends, two on BSC and one on the upper Lemhi River. The two sites on BSC include the portion of the creek that flows through the Karl Tyler Ranch and the Darwin Neibaur Ranch. The upper Lemhi River site includes the section that flows through the Merrill Beyeler Ranch. The redd counts are usually conducted during the last week of April or the first week of May.

RESULTS AND DISCUSSION

We conducted resident rainbow trout redd counts on April 5, 2001. We observed a total of 283 redds on BSC. Ninety-five redds were counted on the Neibaur Ranch while 186 were observed on the Tyler Ranch. The number of redds observed in 2001 was slightly lower than last year (306; Table 1). Similarly, the number of redds counted on the upper Lemhi River in 2001 (two) was less than counted in 2000 (23).

We normally conduct the redd counts during the last week of April or the first week of May. However, we received several reports during the middle of March that spawning activities were well underway in BSC and the upper Lemhi River. Therefore, we conducted the counts earlier in 2001 than normal. Although we conducted the counts ahead of schedule, we encountered numerous redds that were degraded. Therefore, we think the results of the redd count survey under-represent total spawning effort.

Several factors may have contributed to the early spawning timing exhibited by rainbow trout in BSC and the upper Lemhi River in 2001. The Lemhi Basin experienced one of the lowest snow packs on record during the winter of 2001. This resulted in reduced runoff and flows during early spring, which may have provided the environmental cues needed by the fish to commence spawning activities early.

The BSC transect within Tyler Ranch boundaries contained more redds in 2001 than in any of the previous years. We think this may be the result of improved stream habitat conditions created by the exclusionary fencing project completed in 1998. Sites will continue to be monitored and trends evaluated in the rainbow trout population in future years.

Table 1. Number of resident rainbow trout redds counted in Big Springs Creek (BSC) and Lemhi River, 1994 through 2001.

| Date | Lemhi River Beyeler Ranch ^a | BSC Neibaur Ranch | BSC Tyler Ranch ^b | Total |
|-------------|---|----------------------|---------------------------------|-----------------|
| 4/26/94 | - | - | - | 40 ^c |
| 5/3/95 | - | 57 | - | 57 |
| 5/3/96 | 7 | 32 | - | 39 |
| 4/21-5/3/97 | 8 | 44 | 45 | 97 |
| 5/3/98 | 18 | 93 | 124 | 235 |
| 4/29/99 | 29 | 39 | 71 | 139 |
| 4/20/00 | 23 | 160 | 123 | 306 |
| 4/5/01 | 2 | 95 | 186 | 283 |

^a Habitat improvement project implemented spring 1995.

^b Habitat improvement project implemented spring 1998.

^c Incidental count taken during a Lemhi Model Watershed Project habitat survey, includes all of Big Spring Creek.

2000 ANNUAL PERFORMANCE REPORT

State Of: Idaho

Program: Fisheries Management F-71-R-25

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: C²

Title: Rivers and Streams Investigations
- Wild Trout Population Surveys
- Upper Salmon River Tributary
Investigations

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

During summer 2000, Idaho Department of Fish and Game and Salmon-Challis Bureau of Land Management personnel sampled 63 tributary streams of the upper Salmon River to determine fish species composition, relative abundance and size distribution. Westslope cutthroat trout *Oncorhynchus clarki lewisi* were found in 63% of the tributary streams we surveyed and had a mean total length of 117 mm. Rainbow/steelhead trout *O. mykiss* were found in 37% of the tributary streams surveyed and had a mean total length of 118 mm. Bull trout *Salvelinus confluentus* were found in 29% of the streams surveyed and had a mean total length of 141 mm. The following species were found in less than 20% of the surveyed streams: brook trout *S. fontinalis* (mean total length=114 mm), mountain whitefish *Prosopium williamsoni* (mean total length=264 mm), and rainbow/cutthroat hybrid trout (mean total length=116 mm).

Authors:

Tom Curet
Regional Fishery Biologist

Arnie Brimmer
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

Rebecca Andersen
Fishery Technician

INTRODUCTION

During the summer of 2000, the Idaho Department of Fish and Game (IDFG) and the Salmon and Challis Resource Areas of the Bureau of Land Management (BLM) cooperatively inventoried fish communities in tributary streams of the upper Salmon River. Accurate and current information is needed to effectively manage fish stocks, particularly since several endangered fish species (bull trout *Salvelinus confluentus*, chinook salmon *Oncorhynchus tshawytscha*, sockeye salmon *O. nerka*, and steelhead trout *O. mykiss*) are known to inhabit the upper Salmon River Basin.

OBJECTIVES

Determine species composition, relative abundance, and size structure of salmonids and other fish species in various tributary streams of the upper Salmon River.

STUDY AREA AND METHODS

Between June 7 and August 18, 2000, 63 tributary streams of the upper Salmon River were surveyed for fish composition, relative abundance, and size distribution. Stream characteristics (temperature, gradient, altitude, and area sampled) were also recorded (Appendix A). Drainage information and map coordinates are found in Appendix B.

Streams were sampled by multiple pass electrofishing with use of a Smith Root SR-15 backpack-shocking unit. Samplers attempted to catch all sizes of game and non-game fish in transects ranging in size from 13 to 125 meters in length while moving upstream. We resampled a given transect one or two more times or until a 50% reduction in fish numbers was realized (we never exceeded three passes at any transect). Captured fish were measured (total length, TL) to the nearest millimeter, placed in holding pens, and monitored for recovery until all passes were completed. Once electrofishing was completed, fish were returned to the general area where they were captured.

Density estimates (fish sampled per 100 m²) were calculated by use of Microfish population software (Van Deventer & Platts, 1989). All fish less than 70 mm were excluded from the population estimates due to difficulties in capturing smaller fish. However, fish less than 70 mm TL were included in length frequency tables. When consecutive passes did not achieve the appropriate reduction (50%), no population estimate for that stream was calculated. Population estimates that include all species and sizes of fish are archived at IDFG's Salmon Region Office in Salmon, Idaho.

RESULTS AND DISCUSSION

Combined population estimates for all species of salmonids were calculated based on total sample size (n) of all salmonids per tributary stream (Table 1). Population estimates for individual salmonid species are listed by site in Tables 2-7. Salmonids were found in 50 of 63 streams surveyed (Table 1). Westslope cutthroat trout *O. clarki lewisi* was the predominant species encountered during our investigations and was found in 63% of the tributary streams surveyed. The highest densities of westslope cutthroat trout occurred in Pratt and Reservoir creeks (Table 2), while Kenney and 18-mile creeks had the highest densities of rainbow/steelhead trout (Table 3). Hayden and 18-mile creeks had the highest densities of bull trout (Table 4). Salmonids were not found in Big Lake, Birch, Blue, Carol, Gooseberry, Hammerean, Moccasin, Mogg, Short, Wade, Wallace, South Fork Williams, or West Fork Wimpy creeks.

Overall, westslope cutthroat trout had a mean TL of 117 mm. Rainbow trout, cutthroat/rainbow hybrid trout, eastern brook trout *S. fontinalis*, mountain whitefish *Prosopium williamsoni* and bull trout had mean total lengths of 118, 116, 114, 264, and 141 mm, respectively. Length frequencies of westslope cutthroat trout, rainbow/steelhead trout, and bull trout are summarized in Tables 8, 9, and 10.

Appendix A lists stream sites surveyed, dates of sampling, and transect measurements. Appendix B lists streams surveyed, primary drainage, secondary drainage, UTM zone, and UTM coordinates.

Table 1. Combined salmonid (westslope cutthroat trout, bull trout, rainbow/steelhead trout, rainbow/cutthroat trout hybrids, brook trout, and whitefish) population estimates, 95% confidence intervals (CI), and capture probabilities for selected streams connected to the upper Salmon River in 2000.

| Stream | Transect | Fish sampled (n) | Population estimate | Fish/100 m ² | Upper 95% CI | Lower 95% CI | Capture probability |
|----------------------|----------|---------------------|------------------------|-------------------------|-----------------|-----------------|------------------------|
| Anderson Creek | L | 26 | 28 | 15.5 | .990 | .415 | .703 |
| Anderson Creek (WF) | L | 32 | 32 | 23.5 | 1.017 | .713 | .865 |
| Bohannon Creek | L | 21 | 21 | 12.0 | 12.855 | 11.090 | 0.875 |
| Bohannon Creek | M | 2 | NA | NA | NA | NA | NA |
| Bohannon Creek | U | 16 | 16 | 6.2 | 6.895 | 5.450 | 0.842 |
| Bohannon Creek (EF) | M | 4 | 4 | 2.4 | 3.550 | 1.224 | 0.800 |
| Bohannon Creek (EF) | M | 2 | NA | NA | NA | NA | NA |
| Bray Creek | | 12 | NA | NA | NA | NA | NA |
| Cabin Creek | L | 5 | * | 15.3 | * | * | * |
| Challis Creek | U | 13 | 13 | 10.4 | 12.202 | 8.681 | 0.813 |
| Clear Creek | L | 31 | 32 | 1.9 | .996 | .594 | .795 |
| Cooper Creek | L | 15 | 15 | 12.1 | 14.058 | 10.077 | 0.652 |
| Copper Creek | L | 24 | 26 | 20.0 | .999 | .372 | .686 |
| Copper Creek | U | 16 | 16 | 10.0 | 1.090 | .594 | .842 |
| Dahlonga Creek | L | 46 | 54 | 13.5 | .866 | .345 | .605 |
| Darling Creek | L | 5 | 5 | 8.5 | 11.039 | 6.026 | 0.833 |
| Darling Creek | M | 10 | NA | NA | NA | NA | NA |
| Darling Creek | U | 16 | 16 | 15.6 | 17.404 | 13.755 | 0.842 |
| Dump Creek | L | 24 | 24 | 13.3 | 1.041 | .673 | .857 |
| Dump Creek | L | 2 | * | * | * | * | * |
| Dump Creek | U | 14 | 14 | 12.9 | 1.113 | .534 | .824 |
| Dump Creek | U | 4 | * | * | * | * | * |
| East Boulder Creek | U | 47 | 49 | 11.9 | .950 | .617 | .783 |
| East Boulder Creek | L | 47 | 49 | 21.3 | .950 | .617 | .783 |
| Eddy Creek | L | 7 | * | 6.3 | * | * | * |
| Eddy Creek | | 9 | | *** | | | |
| 18 Mile Creek | U | 57 | | *** | | | |
| Freeman Creek | | 6 | | *** | | | |
| Geertson Creek | M | 18 | 38 | 7.7 | 49.923 | 17.333 | 0.189 |
| Geertson Creek | U | 14 | 14 | 13.4 | 15.407 | 11.405 | 0.824 |
| Hayden Creek | | 38 | NA | NA | NA | NA | NA |
| Holman Creek | U | 1 | NA | NA | NA | NA | NA |
| Horse Creek | U | 33 | 38 | .837 | .923 | .322 | .623 |
| Horse Creek | U | 17 | 18 | 10.0 | 1.071 | .346 | .708 |
| Kenney Creek | | 11 | 11 | 12.5 | 14.315 | 10.741 | 0.846 |
| Kenney Creek | | 35 | 35 | 20.2 | 21.537 | 18.786 | 0.854 |
| Kirtley Creek (E.F.) | M | 1 | NA | NA | NA | NA | NA |
| Lemhi River | L | 17 | | *** | | | |
| Lemhi River | M | 44 | | *** | | | |
| Lemhi River | U | 25 | | *** | | | |
| Marsh Creek | U | 73 | 227 | 56.1 | .558 | -.206 | .176 |
| Moose Creek | U | 99 | 104 | 29.7 | .886 | .649 | .767 |

Table 1. Continued.

| Stream | Transect | Fish sampled (n) | Population estimate | Fish/100 m ² | Upper 95% CI | Lower 95% CI | Capture probability |
|----------------------|----------|---------------------|------------------------|-------------------------|-----------------|-----------------|------------------------|
| Moose Creek | L | 90 | 96 | 20.4 | .873 | .602 | .738 |
| Moose Creek | L | 68 | 75 | 15.9 | .865 | .509 | .687 |
| Morgan Creek | U | 11 | 11 | 27.8 | 31.740 | 23.816 | 0.846 |
| Nez Perce | L | 26 | 26 | 13.6 | 1.035 | .698 | .867 |
| Nez Perce (WF) | L | 9 | 9 | 6.0 | 1.169 | .631 | .900 |
| North Fork Salmon R. | L | 45 | 48 | 15.4 | .927 | .524 | .726 |
| North Fork S.R. (WF) | L | 17 | 18 | 7.2 | 1.071 | .346 | .708 |
| Pahsimeroi River | U | 3 | NA | NA | NA | NA | NA |
| Pine Creek (EFK) | L | 1 | * | 2.1 | * | * | * |
| Pine Creek (EFK) | U | 2 | 2 | 3.6 | 26.836 | 19.536 | 0.667 |
| Pine Creek (EFK) | U | 1 | | *** | | | |
| Pine Creek (EFK) | U | 1 | * | 1.4 | * | * | * |
| Pine Creek (MFK-NFK) | L | 38 | 40 | 10.2 | .960 | .560 | .760 |
| Pratt Creek | L | 18 | 18 | 14.8 | 17.884 | 15.824 | 0.900 |
| Pratt Creek | | 4 | * | 3.7 | * | * | * |
| Prospect Creek | | 12 | 12 | 8.5 | 10.362 | 6.683 | 0.632 |
| Reservoir Creek | L | 2 | NA | NA | NA | NA | NA |
| Reservoir Creek | L | 9 | 9 | 9.6 | 10.456 | 8.652 | 0.900 |
| Reservoir Creek | M | 12 | 12 | 16.0 | 19.151 | 12.892 | 0.800 |
| Reservoir Creek | M | 17 | 17 | 19.7 | 22.615 | 16.828 | 0.810 |
| Reservoir Creek | U | 4 | * | 12.0 | * | * | * |
| Sandy Creek (WF) | M | 8 | | *** | | | |
| Sage Creek | U | 12 | 12 | 15 | 1.149 | .451 | .800 |
| Sheep Creek | L | 4 | * | 9.7 | * | * | * |
| Smithy Creek | U | 15 | 15 | 5.0 | 1.104 | .475 | .789 |
| Smithy Creek | L | 23 | 23 | 15.3 | 1.045 | .659 | .852 |
| Spring Creek | L | 51 | 55 | 14.4 | .910 | .527 | .718 |
| Spring Creek | M | 29 | 30 | 9.6 | 1.000 | .568 | .784 |
| Spring Creek (EF) | L | 21 | 21 | 10.0 | 1.054 | .626 | .840 |
| Squaw Creek (Lemhi) | | 1 | NA | NA | NA | NA | NA |
| Squaw Creek (MF-NF) | L | 31 | 35 | 12.5 | .752 | .248 | .500 |
| Squaw Creek (MF-NF) | M | 27 | 27 | 10.0 | 1.027 | .661 | .844 |
| Squaw Creek (MF-NF) | U | 21 | 23 | 10.4 | 1.021 | .334 | .677 |
| Summit Creek | L | 10 | 10 | 5.2 | 5.617 | 4.8 | 0.909 |
| Texas Creek | U | 74 | 80 | 20.3 | 24.478 | 19.369 | 0.718 |
| Three Mile Creek | L | 44 | 46 | 28.7 | .951 | .593 | .772 |
| Three Mile Creek | U | 21 | 23 | 10.9 | 1.021 | .334 | .677 |
| Three Mile Creek | M | 27 | 29 | 14.5 | .986 | .435 | .711 |
| Tobias Creek | | 1 | NA | NA | NA | NA | NA |
| Twin Creek | L | 32 | 37 | 9.4 | .926 | .305 | .615 |
| Twin Creek | U | 29 | 33 | 6.7 | .948 | .313 | .630 |
| Valley Creek | | 21 | 21 | 6.0 | 6.457 | 5.570 | 0.875 |
| Valley Creek | U | 15 | 15 | 2.8 | 3.219 | 2.473 | 0.833 |
| Valley Creek | U | 58 | 67 | 8.8 | 12.415 | 7.959 | 0.624 |

Table 1. Continued.

| Stream | Transect | Fish sampled (n) | Population estimate | Fish/100 m ² | Upper 95% CI | Lower 95% CI | Capture probability |
|-------------------|----------|---------------------|------------------------|-------------------------|-----------------|-----------------|------------------------|
| Valley Creek | U | 37 | 37 | 8.5 | 8.860 | 8.183 | 0.902 |
| Valley Creek | U | 19 | 95 | 7.6 | .924 | -.714 | .105 |
| Valley Creek | L | 65 | 80 | 24.7 | .797 | .324 | .560 |
| Valley Creek (EF) | L | 33 | 43 | 6.2 | .878 | .137 | .508 |
| Vine Creek | L | 30 | 30 | 17.6 | 1.032 | .786 | .909 |
| Vine Creek | U | 30 | 30 | 16.6 | 1.026 | .738 | .882 |
| Wagonhammer | L | 19 | 19 | 13.5 | 1.068 | .741 | .905 |
| Wagonhammer | U | 30 | 33 | 17.3 | .960 | .404 | .682 |
| Wagonhammer | M | 41 | 41 | 18.9 | 1.007 | .775 | .891 |
| Wagonhammer | M | 51 | 51 | 16.4 | .990 | .769 | .879 |
| West Fork Hayden | | 2 | NA | NA | NA | NA | NA |
| West Fork Hayden | | 26 | NA | NA | NA | NA | NA |
| Wimpy Creek (EF) | M | 9 | * | 8.9 | * | * | * |

* 100 percent depletion achieved on first pass.

*** Length and width of transect was not recorded.

Table 2. Westslope cutthroat trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach.

| Stream | Transect | Number of trout collected |
|----------------------|----------|---------------------------|
| Anderson Creek | L | 26 |
| Anderson Creek (WF) | L | 32 |
| Cabin Creek | L | 5 |
| Challis Creek | U | 6 |
| Copper Creek | L | 24 |
| Copper Creek | U | 16 |
| Dahlonaga Creek | L | 6 |
| Darling Creek | M | 10 |
| Darling Creek | U | 14 |
| East Boulder Creek | U | 1 |
| East Boulder Creek | L | 47 |
| Eddy Creek | L | 6 |
| Geertson Creek | M | 3 |
| Holman Creek | U | 1 |
| Kenney Creek | M | 9 |
| Kirtley Creek (E.F.) | M | 1 |
| Morgan Creek | U | 11 |
| Nez Perce Creek | L | 26 |
| Nez Perce Creek (WF) | L | 9 |
| North Fork Salmon R. | L | 45 |
| Pine Creek (EFK) | L | 1 |

Table 2. Continued.

| Stream | Transect | Number of trout collected |
|----------------------|----------|---------------------------|
| Pine Creek (EFK) | U | 2 |
| Pine Creek (EFK) | U | 1 |
| Pine Creek (EFK) | L | 1 |
| Pine Creek (MFK-NFK) | U | 1 |
| Pratt Creek | L | 18 |
| Pratt Creek | U | 4 |
| Prospect Creek | L | 4 |
| Reservoir Creek | L | 2 |
| Reservoir Creek | L | 9 |
| Reservoir Creek | M | 12 |
| Reservoir Creek | M | 17 |
| Reservoir Creek | U | 4 |
| Sandy Creek (WF) | M | 8 |
| Sage Creek | U | 12 |
| Sheep Creek | L | 3 |
| Smithy Creek | L | 15 |
| Smithy Creek | L | 22 |
| Spring Creek | M | 2 |
| Spring Creek (EF) | L | 20 |
| Squaw Creek (Lemhi) | L | 1 |
| Squaw Creek (MF-NF) | U | 10 |
| Summit Creek | L | 10 |
| Three Mile Creek | L | 28 |
| Three Mile Creek | U | 21 |
| Three Mile Creek | M | 27 |
| Tobias Creek | L | 1 |
| Twin Creek | U | 1 |
| Valley Creek | U | 4 |
| Valley Creek | U | 1 |
| Valley Creek (EF) | L | 7 |
| Vine Creek | L | 29 |
| Vine Creek | U | 30 |
| Wagonhammer Creek | L | 19 |
| Wagonhammer Creek | M | 92 |
| Wagonhammer Creek | U | 30 |
| West Fork NFSR | L | 16 |
| Wimpy Creek (EF) | M | 9 |

Table 3. Rainbow/steelhead trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach.

| Stream | Transect | Number of trout collected |
|-----------------------|----------|---------------------------|
| Bohannon Creek | L | 15 |
| Bohannon Creek | M | 1 |
| Bohannon Creek (E.F.) | M | 4 |
| Bohannon Creek (E.F.) | M | 1 |
| Clear Creek | L | 31 |
| Dahlonaga Creek | L | 38 |
| Darling Creek | L | 5 |
| Darling Creek | U | 2 |
| Dump Creek | L | 26 |
| Dump Creek | U | 18 |
| East Boulder Creek | U | 34 |
| Eddy Creek | L | 1 |
| Eddy Creek | U | 9 |
| 18 Mile Creek | U | 16 |
| Freeman Creek | M | 6 |
| Horse Creek | L | 3 |
| Kenney Creek | L | 16 |
| Lemhi River | L | 8 |
| Lemhi River | M | 5 |
| Marsh Creek | U | 3 |
| Moose Creek | U | 99 |
| Moose Creek | L | 158 |
| Pine Creek | L | 36 |
| Sheep Creek | L | 1 |
| Spring Creek | L | 51 |
| Spring Creek | M | 27 |
| Spring Creek (E.F.) | L | 2 |
| Squaw Creek | L | 26 |
| Squaw Creek | M | 19 |
| Texas Creek | U | 1 |
| Twin Creek | L | 1 |
| Valley Creek | U | 1 |
| Valley Creek | U | 3 |
| Valley Creek | L | 3 |
| Valley Creek (E.F.) | L | 2 |

Table 4. Bull trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach.

| Stream | Transect | Number of trout collected |
|-------------------|----------|---------------------------|
| Bohannon Creek | M | 1 |
| Bohannon Creek | U | 16 |
| Bray Creek | M | 12 |
| Challis Creek | U | 6 |
| Cooper Creek | L | 15 |
| 18 Mile Creek | U | 41 |
| Geertson Creek | M | 10 |
| Geertson Creek | U | 14 |
| Hayden Creek | U | 36 |
| Horse Creek | L | 30 |
| Horse Creek | U | 17 |
| Kenney Creek | M | 2 |
| Lemhi River | M | 2 |
| Pahsimeroi River | U | 3 |
| Squaw Cr. (MF-NF) | L | 5 |
| Squaw Cr. (MF-NF) | M | 8 |
| Squaw Cr. (Lemhi) | U | 11 |
| Twin Creek | L | 31 |
| Twin Creek | U | 28 |
| Valley Creek (EF) | L | 1 |
| Vine Creek | L | 1 |
| West Fork Hayden | L | 1 |
| West Fork Hayden | M | 24 |
| West Fork NFSR | L | 1 |

Table 5. Rainbow/Cutthroat Hybrid trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. M=middle reach and U=upper reach.

| Stream | Transect | Number of trout collected |
|------------------|----------|---------------------------|
| Geertson Creek | M | 5 |
| Hayden Creek | U | 2 |
| Kenney Creek | M | 19 |
| Texas Creek | U | 1 |
| West Fork Hayden | M | 1 |
| West Fork Hayden | L | 2 |

Table 6. Eastern brook trout collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach.

| Stream | Transect | Number of trout collected |
|----------------------|----------|---------------------------|
| Bohannon Creek | L | 6 |
| BohannonCreek (E.F.) | M | 1 |
| Challis Creek | U | 1 |
| Dahlonge Creek | L | 2 |
| Lemhi River | L | 1 |
| Lemhi River | U | 3 |
| Marsh Creek | U | 69 |
| Prospect Creek | L | 8 |
| Smithy Creek | L | 1 |
| Texas Creek | U | 57 |
| Three Mile Creek | L | 16 |
| Valley Creek | M | 21 |
| Valley Creek | U | 11 |
| Valley Creek | U | 57 |
| Valley Creek | U | 34 |
| Valley Creek | L | 6 |
| Valley Creek | U | 3 |
| Valley Creek (EF) | L | 23 |

Table 7. Mountain whitefish collected from tributary streams of the upper Salmon River, Idaho, during the summer of 2000. L=lower reach, M=middle reach, and U=upper reach.

| Stream | Transect | Number of whitefish collected |
|--------------------|----------|-------------------------------|
| East Boulder Creek | U | * |
| Lemhi River | L | 8 |
| Lemhi River | M | 21 |
| Lemhi River | U | 20 |
| Marsh Creek | U | 1 |
| Moose Creek | L | * |
| Texas Creek | U | 15 |
| Valley Creek | U | 3 |

* Whitefish were present but no data were available.

Table 8. Mean total lengths, minimum total lengths, maximum total lengths, and standard deviations for westslope cutthroat trout collected from various tributary streams of the upper Salmon River, Idaho, during the summer of 2000.

| Stream | Sample size | Mean total length (mm) | Minimum total length (mm) | Maximum total length (mm) | Standard deviation |
|----------------------|-------------|------------------------|---------------------------|---------------------------|--------------------|
| Anderson Creek | 26 | 105 | 70 | 150 | 22.8 |
| Anderson Cr. (WF) | 32 | 82 | 70 | 200 | 26.7 |
| Cabin Creek | 6 | 111 | 53 | 133 | ** |
| Challis Creek | 7 | 116 | 53 | 157 | ** |
| Copper Creek | 40 | 108 | 70 | 180 | 25.3 |
| Dahlonaga Creek | 6 | 102 | 70 | 130 | 5.24 |
| Darling Creek | 21 | 118 | 50 | 235 | 62.7 |
| East Boulder Cr. | 48 | 115 | 75 | 200 | 36.9 |
| Eddy Creek | 7 | 86 | 50 | 125 | ** |
| Geertson Creek | 3 | 197 | 161 | 255 | ** |
| Hammerean Creek | * | * | * | * | * |
| Holman Creek | 1 | 150 | NA | NA | ** |
| Kenney Creek | 9 | 111 | 72 | 190 | ** |
| Kirtley Creek (E.F.) | 1 | NA | NA | NA | ** |
| Morgan Creek | 21 | 77 | 45 | 135 | 30.5 |
| Nez Perce | 26 | 108 | 70 | 155 | 26.2 |
| Nez Perce (WF) | 9 | 94 | 70 | 125 | ** |
| NFSR | 45 | 140 | 70 | 255 | 45.3 |
| WF NFSR | 16 | 119 | 90 | 180 | ** |
| Pine Creek (EFK) | 4 | 137 | 95 | 170 | ** |
| Pine Cr. (MF-NF) | 1 | 120 | N/A | N/A | ** |
| Pratt Creek | 26 | 151 | 56 | 246 | 64.5 |
| Prospect Creek | 4 | 84 | 74 | 110 | ** |
| Reservoir Creek | 46 | 265 | 60 | 221 | 40.0 |
| Sandy Creek (WF) | 8 | 135 | 110 | 160 | ** |
| Sage Creek | 12 | 89 | 70 | 135 | ** |
| Sheep Creek | 3 | 183 | 170 | 190 | ** |
| Short Creek | 1 | 60 | NA | NA | ** |
| Smithy Creek | 37 | 87 | 70 | 160 | 21.9 |
| Spring Creek | 2 | 140 | 135 | 145 | ** |
| Spring Creek (EF) | 19 | 113 | 75 | 200 | ** |
| Squaw Cr. (Lemhi) | 1 | NA | NA | NA | ** |
| Squaw Cr.(MF-NF) | 10 | 127 | 75 | 210 | ** |
| Summit Creek | 21 | 83 | 45 | 160 | 38.9 |
| Three Mile Creek | 76 | 125 | 70 | 220 | 30.8 |
| Tobias Creek | 1 | NA | NA | NA | ** |
| Twin Creek | 1 | 200 | N/A | N/A | ** |
| Valley Creek | 12 | 136 | 75 | 205 | ** |
| Valley Creek (EF) | 7 | 130 | 110 | 158 | ** |
| Vine Creek | 59 | 104 | 70 | 200 | 26.8 |
| Wagonhammer Cr. | 141 | 128 | 70 | 250 | 43.5 |
| Wimpy Cr. (EF) | 11 | 134 | 47 | 211 | ** |
| Williams Cr. (SF) | * | * | * | * | * |

** Standard Deviations cannot be calculated with less than 20 fish.

* Species was present in the stream, but no measurements were taken.

Table 9. Mean total lengths, minimum total lengths, maximum total lengths, and standard deviations for rainbow/steelhead trout collected from various streams in the upper Salmon River Basin, Idaho, during the summer of 2000.

| Stream | Sample size | Mean total length (mm) | Minimum total length (mm) | Maximum total length (mm) | Standard deviation |
|----------------------|-------------|------------------------|---------------------------|---------------------------|--------------------|
| Bohannon Creek | 16 | 134 | 92 | 185 | ** |
| Bohannon Creek(E.F.) | 4 | 135 | 119 | 155 | ** |
| Clear Creek | 31 | 150 | 85 | 302 | 51.6 |
| Dahlonaga Creek | 38 | 130 | 70 | 225 | 39.4 |
| Darling Creek | 9 | 120 | 52 | 185 | ** |
| Dump Creek | 44 | 95 | 70 | 180 | 21.1 |
| East Boulder Creek | 34 | 104 | 70 | 160 | 25.8 |
| Eddy Creek | 12 | 90 | 50 | 150 | ** |
| 18 Mile Creek | 16 | 188 | 102 | 231 | ** |
| Freeman Creek | 6 | NA | NA | NA | ** |
| Horse Creek | 3 | 135 | 90 | 170 | ** |
| Kenney Creek | 18 | 116 | 68 | 207 | ** |
| Marsh Creek | 3 | 108 | 102 | 112 | ** |
| Moose Creek | 256 | 108 | 70 | 285 | 32.9 |
| Lemhi River | 13 | 169 | 76 | 254 | ** |
| Pine Creek | 36 | 140 | 70 | 220 | 41.6 |
| Spring Creek | 78 | 126 | 70 | 220 | 41.9 |
| Spring Creek (EF) | 2 | 173 | 145 | 200 | ** |
| Sheep Creek | 1 | 148 | NA | NA | ** |
| Squaw Creek | 42 | 111 | 80 | 230 | 32.9 |
| Texas Creek | 1 | 184 | 184 | 184 | ** |
| Twin Creek L | 1 | 210 | N/A | N/A | ** |
| Valley Creek | 14 | 106 | 65 | 199 | ** |
| Valley Creek (EF) | 2 | 136 | 128 | 144 | ** |

** Standard Deviations cannot be calculated with less than 20 fish.

Table 10. Mean total lengths, minimum total lengths, maximum total lengths, and standard deviations for bull trout collected from various streams in the upper Salmon River Basin during the summer of 2000.

| Stream | Sample size | Mean total length (mm) | Minimum total length (mm) | Maximum total length (mm) | Standard deviation |
|---------------------|-------------|------------------------|---------------------------|---------------------------|--------------------|
| Bohannon Creek | 17 | 148 | 74 | 221 | ** |
| Bray Creek | 12 | NA | NA | NA | ** |
| Challis Creek | 7 | 116 | 64 | 165 | ** |
| Cooper Creek | 16 | 127 | 44 | 218 | ** |
| 18 Mile Creek | 41 | 130 | 70 | 211 | 41.9 |
| Geertson Creek | 25 | 118 | 63 | 204 | 41.2 |
| Hayden Creek | 36 | * | * | * | ** |
| Horse Creek | 48 | 132 | 70 | 200 | 29.7 |
| Kenney Creek | 2 | 145 | 115 | 175 | ** |
| Lemhi River | 2 | 254 | 254 | 254 | ** |
| Moccasin Creek | * | * | * | * | ** |
| Pahsimeroi River | 3 | 247 | 190 | 330 | ** |
| Squaw Creek | 24 | 137 | 80 | 210 | 29.8 |
| Twin Creek | 59 | 160 | 80 | 260 | 40.5 |
| Valley Creek (EF) | 1 | 253 | 253 | 253 | ** |
| Vine Creek | 1 | 160 | N/A | N/A | ** |
| West Fork Hayden | 24 | * | * | * | ** |
| WFNFSR | 1 | 250 | N/A | N/A | ** |
| Williams Creek (SF) | * | * | * | * | ** |

** Standard Deviations cannot be calculated with less than 20 fish.

* Species was present in the stream, but no measurements were taken.

LITERATURE CITED

- VanDeventer, J.S. and W.S. Platts. 1989. Microcomputer software system for generating population statistics from electrofishing data – users guide for Microfish 3.0. General Technical Report INT 254. USDA Forest Service, Intermountain Research Station, Boise, Idaho.

APPENDICES

Appendix A. Site characteristics of streams surveyed in the upper Salmon River Basin during the summer of 2000.

| Stream | Transect | Sample date | Channel type | Water temperature (°C) | Transect length (m) | Transect mean width (m) | Transect area (m ²) | Altitude (m) |
|-----------------------|----------|-------------|--------------|------------------------|---------------------|-------------------------|---------------------------------|--------------|
| Anderson Creek | L | 9/25/00 | | | 100.0 | 1.8 | 180.0 | |
| Anderson Creek (W.F.) | L | 7/10/00 | B | 9.5 | 80.0 | 1.7 | 136.0 | |
| Big Lake Creek | M | 6/21/00 | B | 7.0 | 19.5 | 1.5 | 29.2 | 2348 |
| Big Lake Creek | U | 6/21/00 | B | 6.0 | 29.0 | 1.5 | 43.5 | 2514 |
| Birch Creek | M | 6/20/00 | | 10.0 | 31.0 | 1.4 | 43.4 | |
| Blue Creek | L | 6/22/00 | | 15.0 | 35.9 | 0.5 | 17.9 | 1716 |
| Blue Creek | M | 6/22/00 | | 15.0 | 17.9 | 0.3 | 5.3 | 1774 |
| Bohannon Creek | L | 6/15/00 | | 13.0 | 51.6 | 3.4 | 175.4 | 1704 |
| Bohannon Creek | M | 6/15/00 | | 11.0 | 38.2 | 4.2 | 160.4 | 1704 |
| Bohannon Creek | U | 6/15/00 | | 9.0 | 32.0 | 8.1 | 259.2 | 1805 |
| Bohannon Creek (E.F.) | M | 6/15/00 | | | 27.0 | 4.5 | 121.5 | 1704 |
| Bohannon Creek (E.F.) | M | | | 10.0 | | | | |
| Bohannon Creek (E.F.) | M | 7/5/00 | | 9.5 | 57.8 | 2.9 | 167.6 | |
| Bray Creek | M | 8/9/00 | B | 8.3 | 50.0 | | | 2200 |
| Cabin Creek | L | 6/14/00 | | | 29.6 | 1.1 | 32.5 | 2362 |
| Carol Creek | | 8/10/00 | | 6.1 | | | | |
| Challis Creek | U | 8/15/00 | | | 47.9 | 2.6 | 124.5 | |
| Clear Creek | L | 4/24/00 | B | | 153.0 | 10.9 | 1667.0 | 2244 |
| Cooper Creek | L | 8/18/00 | B | 6.0 | 32.6 | 3.8 | 123.9 | |
| Copper Creek | L | 7/11/00 | B | 11.0 | 100.0 | 1.3 | 130.0 | |
| Copper Creek | U | 7/11/00 | G | 7.0 | 100.0 | 1.6 | 160.0 | |
| Dahlonaga Creek | L | 10/25/00 | | | 100.0 | 4.0 | 400.0 | |
| Darling Creek | L | 6/21/00 | | 15.0 | 36.6 | 1.6 | 58.5 | 1617 |
| Darling Creek | M | 6/21/00 | | 12.0 | | | | 1888 |
| Darling Creek | U | 6/21/00 | B | 12.0 | 42.8 | 2.4 | 102.7 | |
| Dump Creek | L | 10/24/00 | | | 100.0 | 1.8 | 180.0 | |
| Dump Creek | L | 4/25/00 | B | 4.5 | 50.0 | 1.4 | 70.0 | |
| Dump Creek | U | 10/24/00 | | | 60.0 | 1.8 | 108.0 | |
| Dump Creek | U | 4/25/00 | B | 4.5 | 50.0 | 1.5 | 75.0 | |
| East Boulder Creek | U | 7/6/00 | A | 12.5 | 100.0 | 4.1 | 410.0 | |

Appendix A. Continued.

| Stream | Transect | Sample date | Channel type | Water temperature (°C) | Transect length (m) | Transect mean width (m) | Transect area (m ²) | Altitude (m) |
|----------------------|----------|-------------|--------------|------------------------|---------------------|-------------------------|---------------------------------|--------------|
| East Boulder Creek | L | 9/28/00 | | 2.0 | 100.0 | 2.3 | 230.0 | |
| Eddy Creek | L | 6/21/00 | B | 13.0 | 35.0 | 3.2 | 112.0 | 1841 |
| Eddy Creek | U | 6/21/00 | B | 13.0 | 47.0 | | | 1768 |
| 18 Mile Creek | U | 7/11/00 | | | | | | 2496 |
| Freeman Creek | M | 6/7/00 | | | | | | |
| Geertson Creek | M | 7/26/00 | | 10.0 | 47.2 | 4.9 | 231.3 | |
| Geertson Creek | U | 7/26/00 | | | 31.7 | 3.3 | 104.6 | 1857 |
| Gooseberry Creek | L | 6/22/00 | B | 14.0 | 31.4 | 0.4 | 12.6 | 1714 |
| Gooseberry Creek | U | 6/22/00 | B | 11.0 | 28.6 | 1.0 | 28.6 | 1856 |
| Hammerean Creek | L | 10/17/00 | B | | 60.0 | 2.0 | 120.0 | |
| Hammerean Creek | M | 10/17/00 | | | 60.0 | 1.5 | 90.0 | |
| Hammerean Creek | M | 10/17/00 | B | | 50.0 | 2.0 | 100.0 | |
| Hayden Creek | U | 8/10/00 | | 8.9 | | | | |
| Holman Creek | L | 6/20/00 | B | 9.5 | 24.5 | 1.1 | 26.9 | 1783 |
| Holman Creek | M | 6/20/00 | B | 10.0 | 24.1 | 1.0 | 24.1 | 1771 |
| Holman Creek | U | 6/20/00 | B | 9.5 | | 1.2 | | 1835 |
| Horse Creek | U | 9/27/00 | B | 3.0 | 100.0 | 4.3 | 430.0 | |
| Horse Creek | U | 10/4/00 | B | | 100.0 | 1.8 | 180.0 | |
| Kenney Creek | M | 7/14/00 | B | 9.4 | 32.0 | 2.7 | 86.4 | 1600 |
| Kenney Creek | L | 7/14/00 | B | 10.0 | 64.0 | 2.7 | 172.8 | 1498 |
| Kirtley Creek (E.F.) | M | 7/27/00 | | | | | | |
| Lemhi River | L | 7/7/00 | B | 18.0 | 71.0 | | | |
| Lemhi River | M | 7/7/00 | B | 18.0 | 82.0 | | | |
| Lemhi River | U | 7/7/00 | B | 18.0 | 60.4 | 11.9 | 718.7 | |
| Marsh Creek | U | 10/26/00 | | | 88.0 | 4.6 | 404.8 | |
| Moccasin Creek | M | 5/25/00 | B | 4.0 | 30.0 | 3.0 | 90.0 | |
| Mogg Creek | | | | 9.4 | | | | |
| Moose Creek | M | 9/28/00 | B | 7.5 | 100.0 | 3.5 | 350.0 | |
| Moose Creek | L | 7/5/00 | B | 13.0 | 100.0 | 4.7 | 470.0 | |
| Moose Creek | L | 10/24/00 | | | 100.0 | 4.7 | 470.0 | |

Appendix A. Continued.

| Stream | Transect | Sample date | Channel type | Water temperature (°C) | Transect length (m) | Transect mean width (m) | Transect area (m ²) | Altitude (m) |
|----------------------|----------|-------------|--------------|------------------------|---------------------|-------------------------|---------------------------------|--------------|
| Morgan Creek | U | 6/22/00 | B | 13.0 | 23.3 | 1.7 | 39.6 | 2136 |
| Nez Perce | L | 10/25/00 | B | | 100.0 | 1.9 | 190.0 | |
| Nez Perce (WF) | L | 10/25/00 | B | | 100.0 | 1.5 | 150.0 | |
| North Fork Salmon R. | L | 9/12/00 | B | 6.0 | 100.0 | 3.1 | 310.0 | |
| North Fork S.R. (WF) | L | 9/12/00 | A | 7.0 | 100.0 | 2.5 | 250.0 | |
| Pahsimeroi River | U | 6/23/00 | | 10.0 | | | | 1982 |
| Pahsimeroi River | U | 6/23/00 | | | | | | 2013 |
| Pine Creek (EFK) | L | 6/21/00 | B | 7.0 | 20.6 | 2.3 | 47.3 | 1884 |
| Pine Creek (EFK) | U | 6/21/00 | B | 5.5 | 27.4 | 2.0 | 54.8 | 2009 |
| Pine Creek (EFK) | U | 6/23/00 | B | 5.5 | 35.0 | | | 2194 |
| Pine Creek (EFK) | U | 6/23/00 | B | 5.5 | 28.9 | 2.5 | 72.2 | 2118 |
| Pine Creek (MFK-NFK) | L | 10/30/00 | A | | 100.0 | 3.9 | 390.0 | |
| Pratt Creek | L | 7/13/00 | | | 34.7 | 3.5 | 121.5 | 1713 |
| Pratt Creek | U | 7/13/00 | B | 8.3 | 35.1 | 3.0 | 105.3 | 2256 |
| Prospect Creek | L | 8/18/00 | B | | 56.3 | 2.5 | 140.7 | 2222 |
| Reservoir Creek | L | 6/14/00 | | | | | | 2371 |
| Reservoir Creek | L | 6/14/00 | | 11.0 | 42.8 | 2.2 | 94.1 | |
| Reservoir Creek | M | 6/14/00 | | | 39.4 | 1.9 | 74.8 | 2304 |
| Reservoir Creek | M | 6/14/00 | | | 35.9 | 2.4 | 86.1 | 2264 |
| Reservoir Creek | U | 6/14/00 | B | | 33.2 | 1.0 | 33.2 | 2359 |
| Sandy Creek (WF) | M | 6/15/00 | | | | | | 1994 |
| Sage Creek | U | 10/23/00 | B | | 100.0 | .8 | 80.0 | |
| Sage Creek | L | 10/17/00 | B | | 100.0 | 1.7 | 170.0 | |
| Sheep Creek | L | 6/20/00 | B | 9.0 | 29.6 | 1.4 | 41.4 | 1955 |
| Sheep Creek | M | 6/20/00 | A | 8.0 | 13.8 | 1.4 | 19.3 | 2061 |
| Short Creek | M | 6/14/00 | | 14.0 | 17.7 | 0.53 | 9.3 | |
| Smithy Creek | U | 6/14/00 | A | 6.0 | 100.0 | 3.0 | 300.0 | |
| Smithy Creek | L | 10/25/00 | B | | 100.0 | 1.5 | 150.0 | |
| Spring Creek | L | 10/2/00 | B | 9.5 | 100.0 | 3.8 | 380.0 | |
| Spring Creek | M | 10/2/00 | B | 8.0 | 100.0 | 3.1 | 310.0 | |

Appendix A. Continued.

| Stream | Transect | Sample date | Channel type | Water temperature (°C) | Transect length (m) | Transect mean width (m) | Transect area (m ²) | Altitude (m) |
|---------------------|----------|-------------|--------------|------------------------|---------------------|-------------------------|---------------------------------|--------------|
| Spring Creek (EF) | L | 10/2/00 | G | 6.0 | 100.0 | 2.1 | 210.00 | |
| Squaw Creek (Lemhi) | L | 8/18/00 | | | 50.0 | | | |
| Squaw Creek (MF-NF) | L | 10/3/00 | B | 7.0 | 100.0 | 2.8 | 280.00 | |
| Squaw Creek (MF-NF) | M | 10/3/00 | | | 100.0 | 2.7 | 270.00 | |
| Squaw Creek (MF-NF) | U | 10/3/00 | A | | 100.0 | 2.2 | 220.00 | |
| Summit Creek | L | 8/18/00 | B | | 65.3 | 2.9 | 189.37 | 2223 |
| Texas Creek | U | 6/21/00 | | 15.0 | 82.0 | 4.5 | 369.00 | 2024 |
| Three Mile Creek | L | 9/26/00 | G | 9.0 | 100.0 | 1.6 | 160.00 | |
| Three Mile Creek | U | 9/26/00 | G | 4.0 | 100.0 | 2.1 | 210.00 | |
| Three Mile Creek | M | 9/26/00 | C | 5.0 | 100.0 | 2.0 | 200.00 | |
| Tobias Creek | L | 8/18/00 | | | 50.0 | | | |
| Twin Creek | L | 9/21/00 | B | 6.0 | 82.0 | 4.8 | 394.00 | |
| Twin Creek | U | 9/12/00 | B | 8.0 | 100.0 | 4.9 | 490.00 | |
| Valley Creek | M | 8/18/00 | C | | 102.1 | 3.4 | 347.14 | 2076 |
| Valley Creek | U | 8/18/00 | C | | 125.5 | 4.2 | 527.10 | 2223 |
| Valley Creek | U | 8/18/00 | C | | 124.1 | 5.3 | 657.73 | |
| Valley Creek | U | 8/18/00 | C | | 109.1 | 3.98 | 434.22 | |
| Valley Creek | U | 10/26/00 | C | | 195.0 | 6.4 | 1248.00 | |
| Valley Creek | L | 10/25/00 | C | | 77.0 | 4.2 | 323.40 | |
| Valley Creek (EF) | L | 10/26/00 | | | 104.0 | 6.7 | 696.80 | |
| Vine Creek | L | 9/21/00 | B | 7.5 | 100.0 | 1.7 | 170.00 | |
| Vine Creek | U | 9/25/00 | A | 5.0 | 100.0 | 1.8 | 180.00 | |
| Wade Creek | | 8/10/00 | | 6.9 | | | | |
| Wagonhammer Creek | L | 5/30/00 | B | 9.5 | 100.0 | 1.4 | 140.00 | |
| Wagonhammer Creek | U | 5/30/00 | B | 6.0 | 100.0 | 1.9 | 190.00 | |
| Wagonhammer Creek | M | 5/30/00 | B | 7.0 | 100.0 | 2.2 | 216.00 | |
| Wagonhammer Creek | M | 5/30/00 | B | 8.5 | 100.0 | 3.1 | 310.00 | |
| Wallace Creek | L | 9/18/00 | A | 14.0 | 120.0 | 2.0 | 240.00 | |
| West Fork Hayden | L | 8/9/00 | B | 10.3 | 100.0 | | | |
| West Fork Hayden | M | 8/10/00 | B | 10.3 | 100.0 | | | |

Appendix A. Continued.

| Stream | Transect | Sample date | Channel type | Water temperature (°C) | Transect length (m) | Transect mean width (m) | Transect area (m ²) | Altitude (m) |
|---------------------|----------|-------------|--------------|------------------------|---------------------|-------------------------|---------------------------------|--------------|
| Williams Creek (SF) | M | 5/25/00 | B | 7.0 | 50.0 | 2.5 | 125.0 | 1929 |
| Wimpy Creek (W.F.) | M | 6/13/00 | B | | 30.7 | 3.3 | 101.3 | |
| Wimpy Creek (E.F.) | M | 6/13/00 | B | 7.0 | 31.6 | 3.2 | 101.1 | |

Appendix B. Upper Salmon River Basin (Idaho) tributary streams surveyed during the summer of 2000.

| Stream | Primary drainage | Secondary drainage | UTM zone | UTM | |
|---------------------|--------------------------------------|--------------------|----------|----------|-----------|
| | | | | Eastings | Northings |
| Anderson Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Anderson Creek (WF) | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Big Lake Creek | EFK Salmon | | 11 | 698329 | 4893146 |
| Big Lake Creek | EFK Salmon | | 11 | 697171 | 4892915 |
| Birch Creek | Main Salmon (Pahsimeroi – East Fork) | Birch Cr. | 11 | 713417 | 4905734 |
| Blue Creek | Main Salmon (Pahsimeroi – East Fork) | Morgan Cr. | 11 | 719001 | 4949860 |
| Blue Creek | Main Salmon (Pahsimeroi – East Fork) | Morgan Cr. | 11 | 718016 | 4948662 |
| Bohannon Creek | Lemhi | | 12 | 286683 | 5002460 |
| Bohannon Creek | Lemhi | | 12 | 287647 | 5006739 |
| Bohannon Creek | Lemhi | | 12 | 288551 | 5007644 |
| Bohannon Creek (EF) | Lemhi | Bohannon Cr. | 12 | 289566 | 5004907 |
| Bohannon Creek (EF) | Lemhi | Bohannon Cr. | 12 | 288477 | 5004219 |
| Bohannon Creek (EF) | Lemhi | Bohannon Cr. | 12 | | |
| Bray Creek | Lemhi | Hayden Cr. | | | |
| Cabin Creek | Lemhi | Hawley Cr. | 12 | 331847 | 4953920 |
| Carol Creek | Lemhi | Hayden Cr. | | | |
| Challis Creek | Main Salmon (Pahsimeroi – East Fork) | | 11 | 699778 | 4931382 |
| Clear Creek | Salmon River (MFK-NFK) | | 12 | | |
| Cooper Creek | Lemhi | Panther Creek | | | |
| Copper Creek | Salmon River (MFK-NFK) | Hayden Cr. | 12 | | |
| Copper Creek | Salmon River (MFK-NFK) | Panther Cr. | 12 | | |
| Copper Creek | Salmon River (MFK-NFK) | Panther Cr. | 12 | | |
| Dahlonaga Creek | North Fork Salmon River | | 12 | | |
| Darling Creek | Main Salmon (Pahsimeroi – East Fork) | | 11 | 717532 | 4939632 |
| Darling Creek | Main Salmon (Pahsimeroi – East Fork) | | 11 | 714890 | 4943675 |
| Darling Creek | Main Salmon (Pahsimeroi – East Fork) | | 11 | 714530 | 4945796 |
| Dump Creek | Salmon River (MFK-NFK) | | 12 | | |
| Dump Creek | Salmon River (MFK-NFK) | | 12 | | |
| Dump Creek | Salmon River (MFK-NFK) | | 12 | | |
| Dump Creek | Salmon River (MFK-NFK) | | 12 | | |

Appendix B. Continued.

| Stream | Primary drainage | Secondary drainage | UTM zone | UTM | |
|--------------------|--------------------------------------|--------------------|----------|---------|----------|
| | | | | Easting | Northing |
| East Boulder Creek | Salmon River (MFK-NFK) | | 12 | | |
| East Boulder Creek | Salmon River (MFK-NFK) | | 12 | | |
| Eddy Creek | Main Salmon (Pahsimeroi – East Fork) | Challis Cr. | 11 | 713302 | 4940155 |
| Eddy Creek | Main Salmon (Pahsimeroi – East Fork) | Challis Cr. | 11 | 713235 | 4939547 |
| 18 Mile Creek | Lemhi | | 12 | 336848 | 4926320 |
| Freeman Creek | Main Salmon (North Fork – Lemhi) | Carmen | | | |
| Geertson Creek | Lemhi | | 12 | | |
| Geertson Creek | Lemhi | | 12 | 288093 | 5011449 |
| Gooseberry Creek | Main Salmon (Pahsimeroi – East Fork) | Morgan Cr. | 11 | 718836 | 4951033 |
| Gooseberry Creek | Main Salmon (Pahsimeroi – East Fork) | Morgan Cr. | 11 | 720262 | 4952341 |
| Hammerean Creek | North Fork Salmon River | | 12 | | |
| Hammerean Creek | North Fork Salmon River | | 12 | | |
| Hammerean Creek | North Fork Salmon River | | 12 | | |
| Hayden Creek | Lemhi | | | | |
| Holman Creek | Main Salmon (EFK – Yankee Fork) | Holman Cr. | 11 | 697237 | 4902214 |
| Holman Creek | Main Salmon (EFK – Yankee Fork) | Holman Cr. | 11 | 696919 | 4901612 |
| Holman Creek | Main Salmon (EFK – Yankee Fork) | Holman Cr. | 11 | 696726 | 4901186 |
| Horse Creek | Salmon River (Below MFK) | | 12 | | |
| Horse Creek | Salmon River (Below MFK) | | 12 | | |
| Kenney Creek | Lemhi | | 12 | 295291 | 4991827 |
| Kenney Creek | Lemhi | | 12 | 293574 | 4990613 |
| Kirtley Creek (EF) | Lemhi | | 12 | | |
| Lemhi River | Main Salmon (Lemhi – Pahsimeroi) | | 12 | 290570 | 4987436 |
| Lemhi River | Main Salmon (Lemhi – Pahsimeroi) | | 12 | 290666 | 4986983 |
| Lemhi River | Main Salmon (Lemhi – Pahsimeroi) | | 12 | 290681 | 4986849 |
| Marsh Creek | Middle Fork Salmon River | | 11 | | |
| Moccasin Creek | Panther Creek | Napias Creek | 12 | | |
| Mogg Creek | Lemhi | Hayden Cr. | | | |
| Moose Creek | Salmon River (MFK-NFK) | | 12 | | |
| Moose Creek | Salmon River (MFK-NFK) | | 12 | | |

Appendix B. Continued.

| Stream | Primary drainage | Secondary drainage | UTM zone | UTM | |
|----------------------|--|--------------------|----------|---------|----------|
| | | | | Easting | Northing |
| Moose Creek | Salmon River (MFK-NFK) | | 12 | | |
| Morgan Creek | Main Salmon (Pahsimeroi - East Fork) | | 11 | 716893 | 4967622 |
| Nez Perce Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Nez Perce (WF) | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| North Fork Salmon R. | Salmon River (MFK-Lemhi) | | 12 | | |
| West Fork NFSR | North Fork Salmon River | | 12 | | |
| Pahsimeroi River | Pahsimeroi | | 12 | 288604 | 4911602 |
| Pahsimeroi River | Pahsimeroi | | 12 | 288571 | 4910645 |
| Pine Creek | EFK Salmon | Pine Cr. | 11 | 710443 | 4890937 |
| Pine Creek | EFK Salmon | Pine Cr. | 11 | 710624 | 4888927 |
| Pine Creek | EFK Salmon | Pine Cr. | 11 | 710416 | 4887186 |
| Pine Creek | EFK Salmon | Pine Cr. | 11 | 710513 | 4887930 |
| Pine Creek | Salmon River (MFK-NFK) | | 12 | | |
| Pratt Creek | Lemhi | | 12 | 291831 | 4997945 |
| Pratt Creek | Lemhi | | 12 | 294372 | 5001817 |
| Prospect Creek | Main Salmon (Yankee Fork – Headwaters) | | 11 | 660554 | 4917345 |
| Reservoir Creek | Lemhi | Hawley Cr. | 12 | 331331 | 4953629 |
| Reservoir Creek | Lemhi | Hawley Cr. | 12 | 329859 | 4951313 |
| Reservoir Creek | Lemhi | Hawley Cr. | 12 | 331519 | 4952662 |
| Reservoir Creek | Lemhi | Hawley Cr. | 12 | 331068 | 4952085 |
| Reservoir Creek | Lemhi | Hawley Cr. | 12 | 331651 | 4954252 |
| Sandy Creek (WF) | Lemhi | Sandy Cr. | 12 | 293863 | 4996966 |
| Sage Creek | Salmon River (MFK-NFK) | | 12 | | |
| Sage Creek | Salmon River (MFK-NFK) | | 12 | | |
| Sheep Creek | EFK Salmon | | 11 | 703898 | 4883345 |
| Sheep Creek | EFK Salmon | | 11 | 704605 | 4882903 |
| Short Creek | Lemhi | Reservoir Cr. | 12 | | |
| Smithy Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Smithy Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Spring Creek | Salmon River (MFK-NFK) | | 12 | | |

Appendix B. Continued.

| Stream | Primary drainage | Secondary drainage | UTM zone | UTM | |
|-------------------|--|--------------------|----------|----------|-----------|
| | | | | Eastings | Northings |
| Spring Creek | Salmon River (MFK-NFK) | | 12 | | |
| Spring Creek | Salmon River (MFK-NFK) | | 12 | | |
| Squaw Creek | Salmon River (MFK-NFK) | | 12 | | |
| Squaw Creek | Salmon River (MFK-NFK) | | 12 | | |
| Squaw Creek | Salmon River (MFK-NFK) | | 12 | | |
| Squaw Creek | Lemhi | Hayden Cr. | | | |
| Summit Creek | Main Salmon (Yankee Fork – Headwaters) | Valley Cr. | 11 | 660843 | 4917342 |
| Texas Creek | Lemhi | | 12 | 318591 | 4931728 |
| Three mile Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Three Mile Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Three Mile Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Three Mile Creek | North Fork Salmon River | Dahlonaga Cr. | 12 | | |
| Tobias Creek | Lemhi | Hayden Cr. | | | |
| Twin Creek | North Fork Salmon River | | 12 | | |
| Twin Creek | North Fork Salmon River | | 12 | | |
| Valley Creek | Main Salmon (Yankee Fork – Headwaters) | | 11 | 655787 | 4914176 |
| Valley Creek | Main Salmon (Yankee Fork – Headwaters) | | 11 | 659794 | 4917726 |
| Valley Creek | Main Salmon (Yankee Fork – Headwaters) | | 11 | 656436 | 4915556 |
| Valley Creek | Main Salmon (Yankee Fork – Headwaters) | | 11 | 657421 | 4917079 |
| Valley Creek | Main Salmon (Yankee Fork-Headwaters) | | 11 | | |
| Valley Creek | Main Salmon (Yankee Fork- Headwaters) | | 11 | | |
| Valley Creek (EF) | Main Salmon (Yankee Fork- Headwaters) | | 11 | | |
| Vine Creek | North Fork Salmon River | | 12 | | |
| Vine Creek | North Fork Salmon River | | 12 | | |
| Wade Creek | Lemhi | Hayden Cr. | | | |
| Wagonhammer Creek | Salmon River (NFK-Lemhi) | | 12 | | |
| Wagonhammer Creek | Salmon River (NFK-Lemhi) | | 12 | | |
| Wagonhammer Creek | Salmon River (NFK-Lemhi) | | 12 | | |
| Wagonhammer Creek | Salmon River (NFK-Lemhi) | | 12 | | |
| Wallace Creek | Salmon River (NFK-Lemhi) | | 12 | | |

Appendix B. Continued.

| Stream | Primary drainage | Secondary drainage | UTM zone | UTM | |
|---------------------|---------------------------------|--------------------|----------|---------|----------|
| | | | | Easting | Northing |
| West Fork Hayden | Lemhi | Hayden Cr. | | | |
| West Fork Hayden | Lemhi | Hayden Cr. | | | |
| Williams Creek (SF) | Salmon River (Lemhi-Pahsimeroi) | Williams Creek | 12 | | |
| Wimpy Creek (WF) | Lemhi | | 12 | 290782 | 5004114 |
| Wimpy Creek (EF) | Lemhi | | 12 | 290288 | 5000852 |

2000 ANNUAL PERFORMANCE REPORT

State Of: Idaho

Program: Fisheries Management F-71-R-24

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: c³

Title: Rivers and Streams Investigations
- Valley Creek Brook Trout Reduction

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

Since 1995 Idaho Fish and Game personnel have electrofished and removed 26,063 brook trout *Salvelinus fontinalis* from Valley Creek to open habitat for native fishes. To reestablish native fishes, we have stocked 103,517 native bull trout *S. confluentus*, westslope cutthroat trout *Oncorhynchus clarki lewisi* and rainbow trout/westslope cutthroat trout hybrids from adjacent watersheds.

Members of the Shoshone Bannock Indian Tribes snorkeled in Valley Creek and found that brook trout densities have declined substantially since we began reduction efforts. However, there has not been a corresponding increase in numbers of native fish. Throughout the drainage native fishes are present in low numbers in areas that previously contained only brook trout. We believe that it will take more time before increases in native fish populations are apparent.

Authors:

Tom Curet
Regional Fishery Biologist

Mike Larkin
Regional Fishery Manager

INTRODUCTION

The Idaho Department of Fish and Game (IDFG) is involved in numerous research and management projects to return to fishable levels those native fish stocks federally listed as threatened or endangered (or proposed for listing). The IDFG Salmon Region is attempting to reestablish native fishes into Valley Creek in the Sawtooth Valley near Stanley, Idaho.

Native salmonid fishes of the Valley Creek drainage include chinook salmon *Oncorhynchus tshawytscha*, steelhead/rainbow trout *O. mykiss*, bull trout *Salvelinus confluentus*, westslope cutthroat trout *O. clarki lewisi* and mountain whitefish *Prosopium williamsoni*. The only salmonids known to be introduced in the watershed are brook trout *S. fontinalis* and lake trout *S. namaycush*. Lake trout are confined to Stanley Lake and have never been observed elsewhere in the basin.

We suspect that brook trout in both Valley Creek and other western watersheds may suppress the reestablishment of native fishes if numbers of native fishes have been driven below some threshold level. Habitat loss, historically liberal fishing regulations, and the introduction of brook trout have compromised native fishes stocks in Valley Creek.

To help reestablish native fishes in Valley Creek the IDFG is reducing brook trout numbers. This is not an attempt to eliminate brook trout from the watershed, although this would be a desirable result. Complete removal of brook trout would be physically, and most likely socially, impossible to implement. The objective is to open niches for wild stocks and to increase the size of remaining brook trout, thus making them more appealing to anglers. Although brook trout are abundant in the watershed, anglers do not generally target the fish due to their small size.

In 1995 we began to reduce brook trout numbers in Valley Creek. This report summarizes project results for the first 6 years.

OBJECTIVES

1. Evaluate the effectiveness of multiple-pass and multiple-year electrofishing on reducing numbers of brook trout.
2. Assess the reintroduction of native cutthroat and bull trout from nearby streams for reestablishment of a fishable population.

STUDY AREA

Valley Creek is located in Custer County in central Idaho. It flows into the Salmon River at river km 609.0 and is bordered by the Sawtooth Mountains on the south and by the headwaters of the Middle Fork Salmon River on the north (Figure 1). Elevation ranges from 1,887 to 3,277 m. Land uses within the watershed are typical of central Idaho and include recreation, grazing, and very limited private mining and timber harvest.

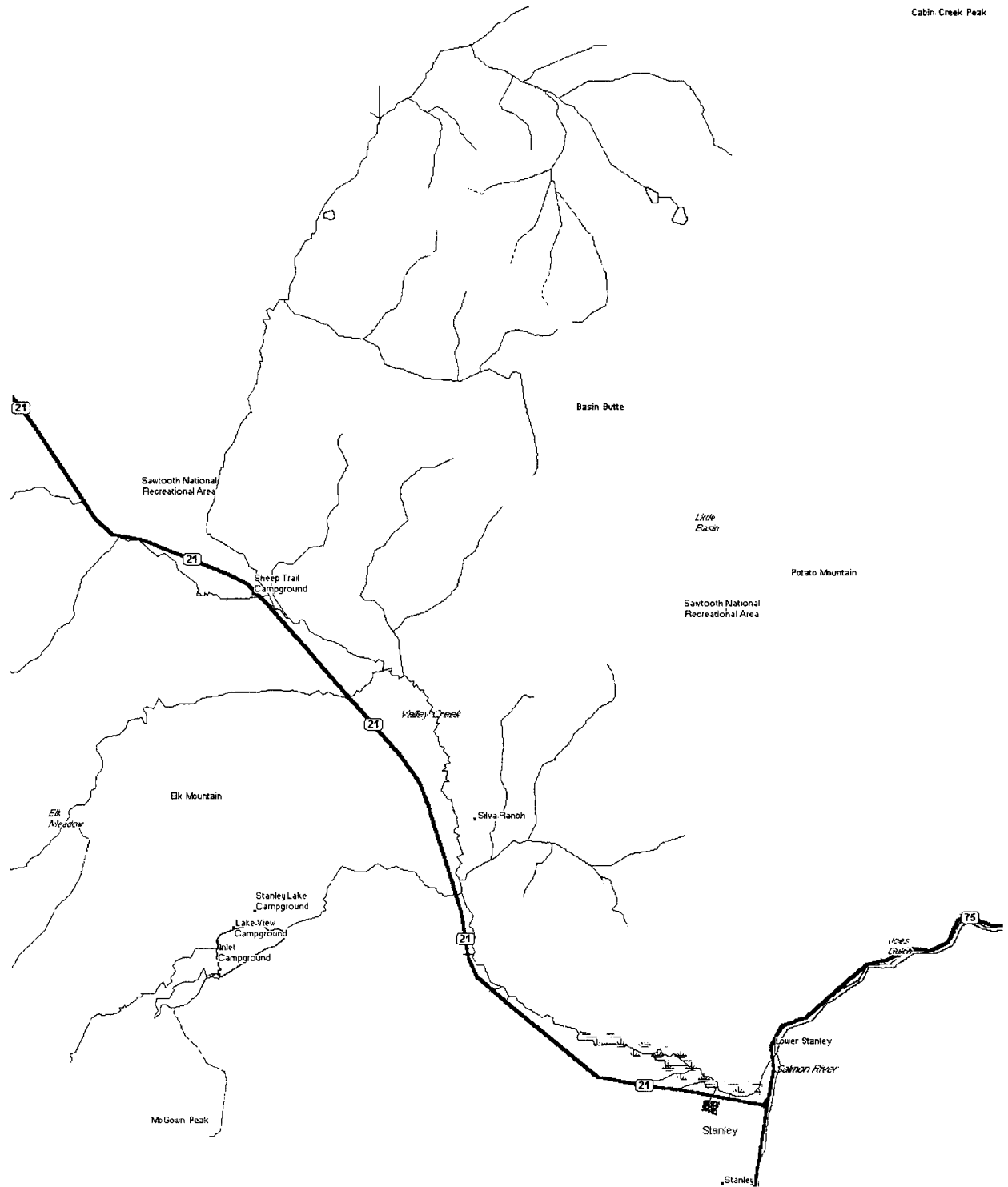


Figure 1. Map of the Valley Creek drainage, central Idaho.

Our study area begins 9.6 km upstream from Valley Creek's confluence with the Salmon River and extends upstream for approximately 12 km. The lower 0.8 km of Elk Creek, East Fork Valley Creek and several unnamed sloughs and side tributaries are also included.

METHODS

Project personnel used Smith-Root SR-15 backpack units and attempted to catch all sizes of game fishes encountered. Native fishes were identified and immediately released unharmed. Brook trout were placed on the stream bank.

We recorded numbers of brook trout removed; other species were noted in general terms at the end of each removal effort. Annual effort varied depending on schedules, available personnel, and funding.

IDFG staff also electrofished nearby tributaries to capture native fishes for restocking the study area. All sizes of westslope cutthroat trout and bull trout were captured and released in Valley Creek, usually the same day of capture. Additionally, we collected adult westslope cutthroat trout in the spring by angling and by upstream trapping at Dagger Falls on the Middle Fork Salmon River.

To evaluate basin-wide changes in fish populations, we depended on existing anadromous fish reports. Snorkel surveys, conducted by the Shoshone-Bannock Indian Tribes, provided an independent evaluation of the project with no additional cost or effort to IDFG.

RESULTS AND DISCUSSION

Removal Efforts

IDFG project personnel have removed 26,063 brook from the Valley Creek watershed since 1995 (Table 1). since implementation of the reduction project, densities of all size classes of brook trout have declined (Figures 2-4). These data suggest the reduction program is effectively impacting the brook trout population. The benefits of this impact are not yet apparent in other native salmonid populations (Figure 5); however, it will take several fish generations before any valid conclusions can be drawn.

Table 1. Number of brook trout removed from Valley Creek 1995-2000.

| Year | No. of brook trout removed |
|-------|----------------------------|
| 1995 | 193 |
| 1996 | 4,804 |
| 1997 | 16,025 |
| 1998 | 4,503 |
| 1999 | 212 |
| 2000 | 326 |
| Total | 26,063 |

Reintroduction Efforts

To date IDFG has stocked 103,517 native fishes of various sizes into Valley Creek. Sources were primarily local watersheds (Table 2). The largest single stocking was on September 26, 1996 when 100,000 Montana strain westslope cutthroat were stocked. We believe this was largely a failure, as some of these fish retained at Sawtooth hatchery had very poor survival.

In 1997 project personnel transported larger westslope cutthroat trout (294-389 mm), believed to be pre-spawning adults, from the Middle Fork Salmon River to Valley Creek. We implanted these fish with radio transmitters to evaluate both retention time and spawning behavior (Liter et al. 2000, in preparation). Results from this and subsequent plants indicate the fish remain in Valley Creek for up to one month after stocking.

We now believe the westslope cutthroat trout used in the tracking experiment were not ready for spawning. Although the fish appeared large and gravid, we later discovered that they had a high condition factor and were probably not mature enough to spawn until the following spring. In the future, we will attempt to collect actual spawners by trapping earlier in spring to overlap with the spawning migration to the upper Middle Fork Salmon River.

RECOMMENDATIONS

- 1, Continue to have Shoshone-Bannock Indian Tribe fisheries staff snorkel Valley Creek to evaluate response of brook trout and native fish stocks to brook trout reduction.
2. Refine the collection of westslope cutthroat trout spawners in the Middle Fork Salmon River to ensure that only ripe fish are transported to Valley Creek.
3. Evaluate actual costs of brook trout reduction to determine if the program is successful and cost-effective.

Table 2. Fish stocked in Valley Creek from 1995 through 2000.

| Date | Species | Number | Size range (mm) | Source |
|------------------|------------|---------|--------------------|--|
| 10/12/95 | cutthroat | 10 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | cutthroat | 6 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | cutthroat | 20 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | cutthroat | 9 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | cutthroat | 7 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | cutthroat | 14 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | cutthroat | 30 | 75 – 280 | Upper Yankee Fork Salmon River |
| Total Cutthroat | | 96 | | |
| 09/29/95 | bull trout | 7 | 75 – 280 | Upper Yankee Fork Salmon River |
| 10/12/95 | bull trout | 7 | 75 – 280 | Upper Yankee Fork Salmon River |
| Total Bull Trout | | 14 | | |
| 06/19/96 | cutthroat | 9 | N / A | Mainstem Salmon River (Downstream from Middle Fork Salmon R) |
| 06/19/96 | cutthroat | 5 | N / A | Middle Fork Salmon River (Dagger Falls) |
| 06/24/96 | cutthroat | 15 | 310 | Middle Fork SR and Main Salmon River |
| 07/31/96 | cutthroat | 13 | 120 – 360 | Middle Fork Salmon River (Dagger Falls) |
| 09/26/96 | cutthroat | 100,000 | 25 | Montana strain WSCT* |
| 10/05/96 | cutthroat | 125 | N / A | Grouse Creek (Loon Creek Tributary) |
| 10/15/96 | cutthroat | 25 | 75 – 210 | Fisher Creek (Salmon River Tributary) |
| 10/15/96 | cutthroat | 325 | 75 - 290 | Grouse Creek (Loon Creek Tributary) |
| 10/16/96 | cutthroat | 25 | N / A | Fisher Creek (Salmon River Tributary) |
| 10/17/96 | cutthroat | 200 | N / A | Grouse Creek (Loon Creek Tributary) |
| Total Cutthroat | | 100,742 | | |
| 10/05/96 | bull trout | 6 | N / A | W.F. Mayfield Creek (Loon Cr. Tributary) |
| 10/16/96 | bull trout | 20 | N / A | W.F. Mayfield Creek (Loon Cr. Tributary) |
| Total Bull Trout | | 26 | | |
| 6/17-18/97 | cutthroat | 10 | >300 | Middle Fork Salmon River (Dagger Falls) |
| 6/23-25/97 | cutthroat | 71 | >300 | Middle Fork Salmon River (Dagger Falls) |
| 09/05/97 | cutthroat | 144 | 100 – 250 | Rapid River (Middle Fork SR Tributary) |
| 09/29/97 | cutthroat | 77 | 100 – 300 | Morse Creek (Pahsimeroi R Tributary) |
| 10/03/97 | cutthroat | 110 | 100 – 325 | Morse Creek (Pahsimeroi R Tributary) |
| 10/06/97 | cutthroat | 118 | 75 – 300 | McKim Creek (Pahsimeroi R Tributary) |
| 10/09/97 | cutthroat | 181 | N / A | Morgan Creek |
| Total Cutthroat | | 711 | | |

Table 2. Continued.

| Date | Species | Number | Size Range | Source |
|-----------------------|------------|--------|------------|---|
| 09/05/97 | bull trout | 15 | 90 – 280 | Rapid River (Middle Fork SR Tributary) |
| 09/29/97 | bull trout | 56 | 90 – 280 | Morse Creek (Pahsimeroi R Tributary) |
| 10/06/97 | bull trout | 55 | 75 - 320 | McKim Creek (Pahsimeroi R Tributary) |
| 10/09/97 | bull trout | 22 | N / A | Morgan Creek (Pahsimeroi R Tributary) |
| Total Bull Trout | | 215 | | |
| 09/05/97 | cutxrbt | 5 | 100 - 160 | Rapid River (Middle Fork SR Tributary) |
| Total cutxrbt Hybrids | | 5 | | |
| 6/9-7/2/98 | cutthroat | 203 | 255-357 | Middle Fork Salmon River (Dagger Falls) |
| 6/18/98 | cutthroat | 42 | 127-255 | Morse Creek (Pahsimeroi R Tributary) |
| 10/14/98 | cutthroat | 173 | 75-204 | Grouse Creek (Loon Creek Tributary) |
| 10/14/98 | cutthroat | 4 | 75-204 | Morse Creek (Pahsimeroi R Tributary) |
| Total Cutthroat | | 422 | | |
| 06/18/98 | bull trout | 19 | 127-255 | Morse Creek (Pahsimeroi R Tributary) |
| 10/14-15/98 | bull trout | 317 | 75-306 | Morse Creek (Pahsimeroi R Tributary) |
| Total Bull Trout | | 336 | | |
| 10/5/99 | cutthroat | 64 | 87 -232 | Float Creek (Rapid River Tributary) |
| 10/6/99 | cutthroat | 179 | 87 -232 | Float Creek (Rapid River Tributary) |
| 10/6/99 | cutthroat | 24 | 87 -232 | Vanity Creek (Rapid River Tributary) |
| Total Cutthroat | | 267 | | |
| 10/5/99 | bull trout | 6 | 87 -232 | Float Creek (Rapid River Tributary) |
| 10/6/99 | bull trout | 29 | 87 -232 | Float Creek (Rapid River Tributary) |
| 10/6/99 | bull trout | 33 | 87 -232 | Vanity Creek (Rapid River Tributary) |
| Total Bull Trout | | 68 | | |
| 8/8/00 | cutthroat | 472 | 100 - 325 | Canyon Creek (Loon Creek Tributary) |
| Total Cutthroat | | 472 | | |
| 8/8/00 | bull trout | 143 | 100 - 350 | Canyon Creek (Loon Creek Tributary) |
| Total Bull Trout | | 143 | | |

Brook Trout <90 mm

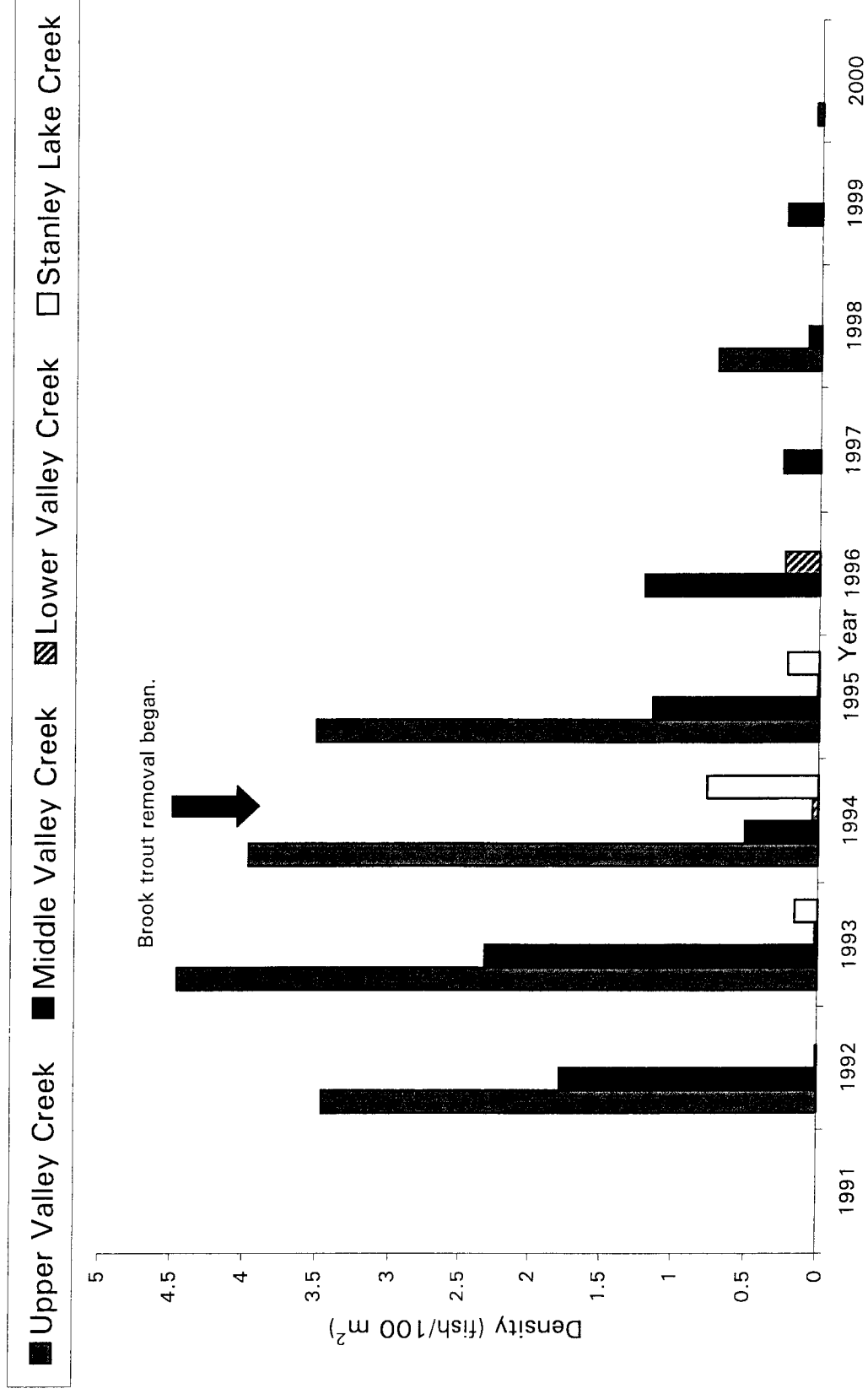


Figure 2. Density of brook trout <90 mm total length in Valley Creek, 1992-2000 (data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies).

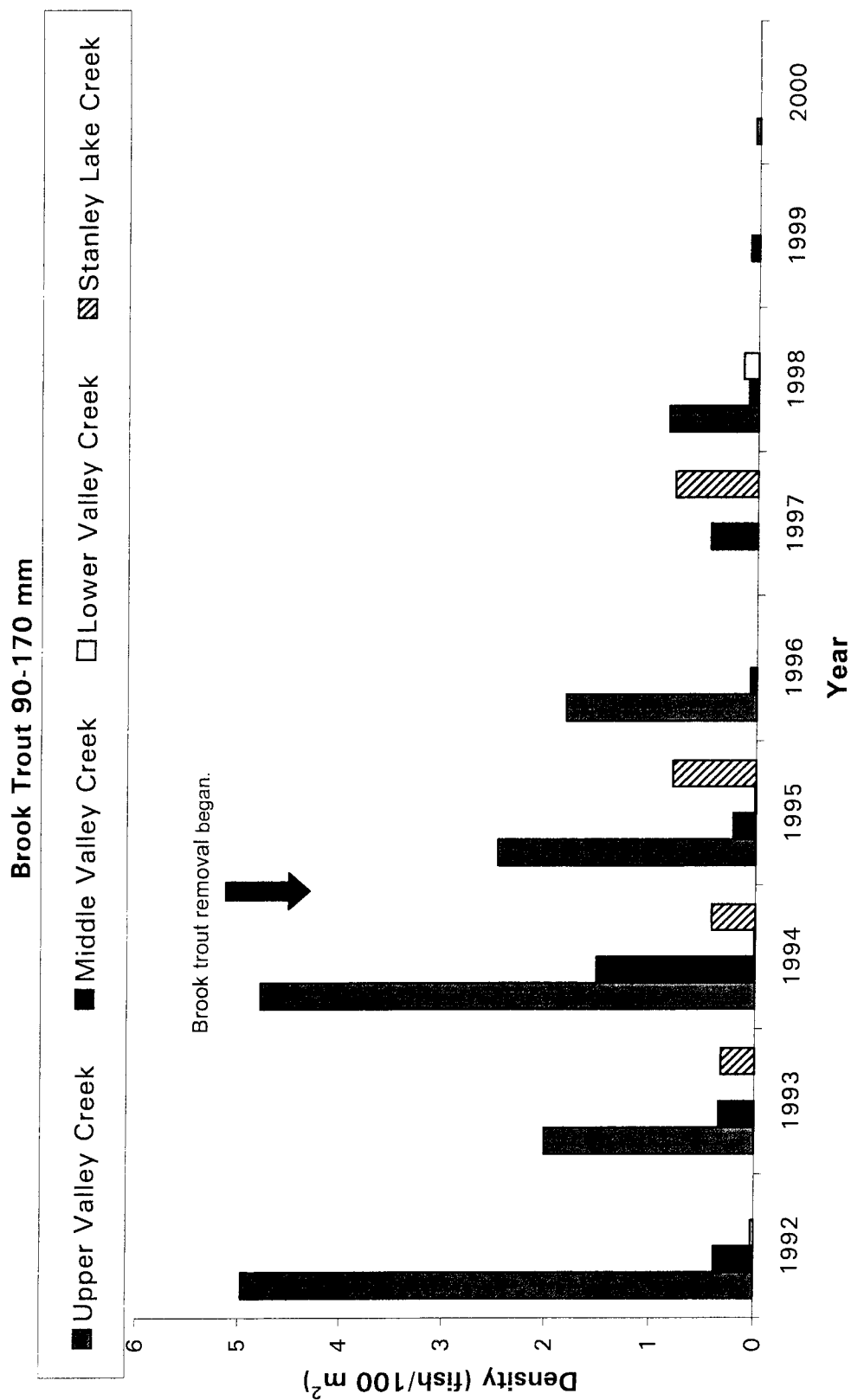


Figure 3. Density of brook trout 90 – 170 mm total length in Valley Creek, 1992 – 2000 (data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies).

Brook Trout > 170 mm

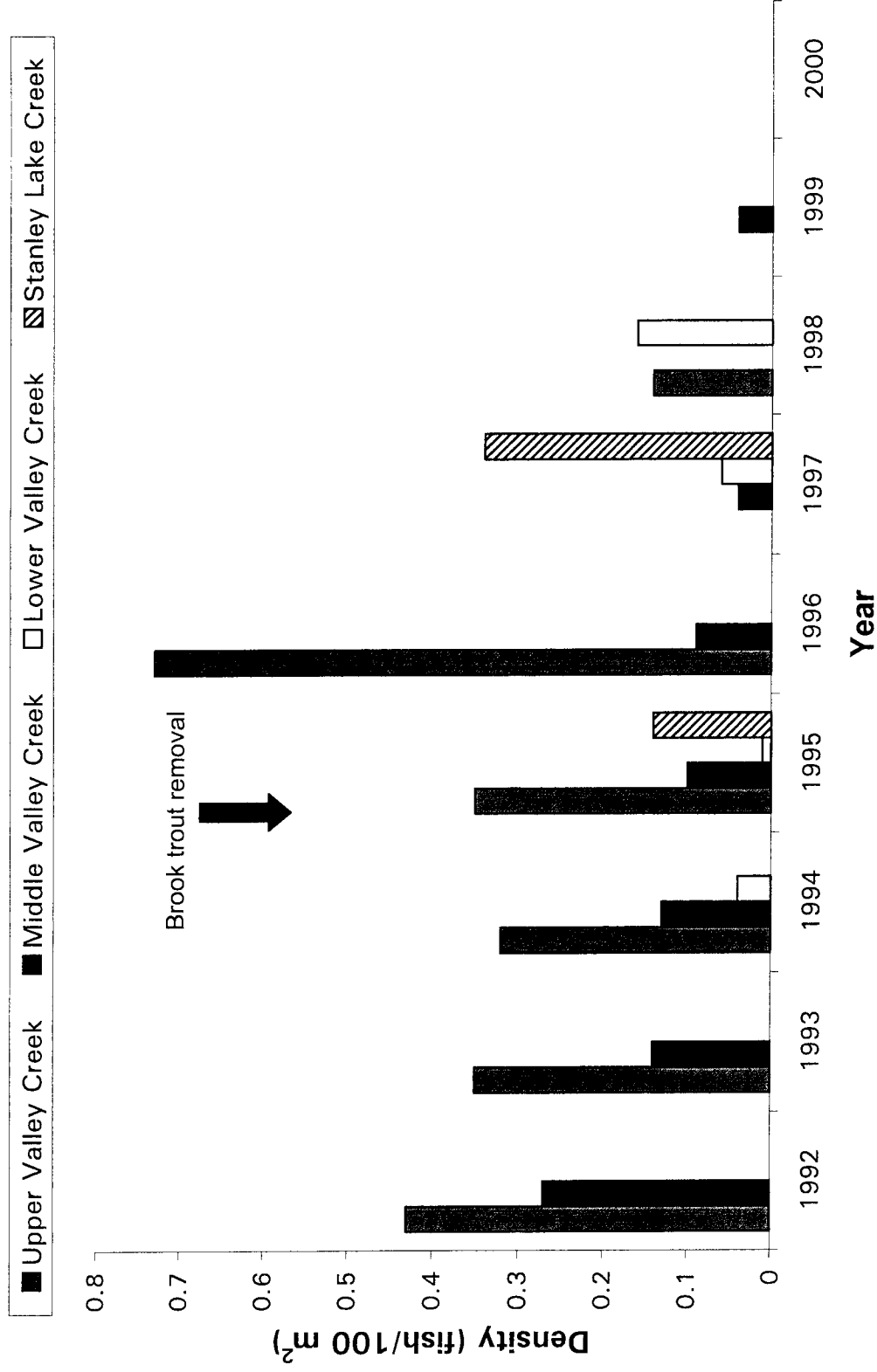


Figure 4. Density of brook trout >170 mm total length in Valley Creek, 1992 ~ 2000 (Data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies).

BULL TROUT, WESTSLOPE CUTTHROAT TROUT AND STEELHEAD TROUT COMBINED DENSITIES

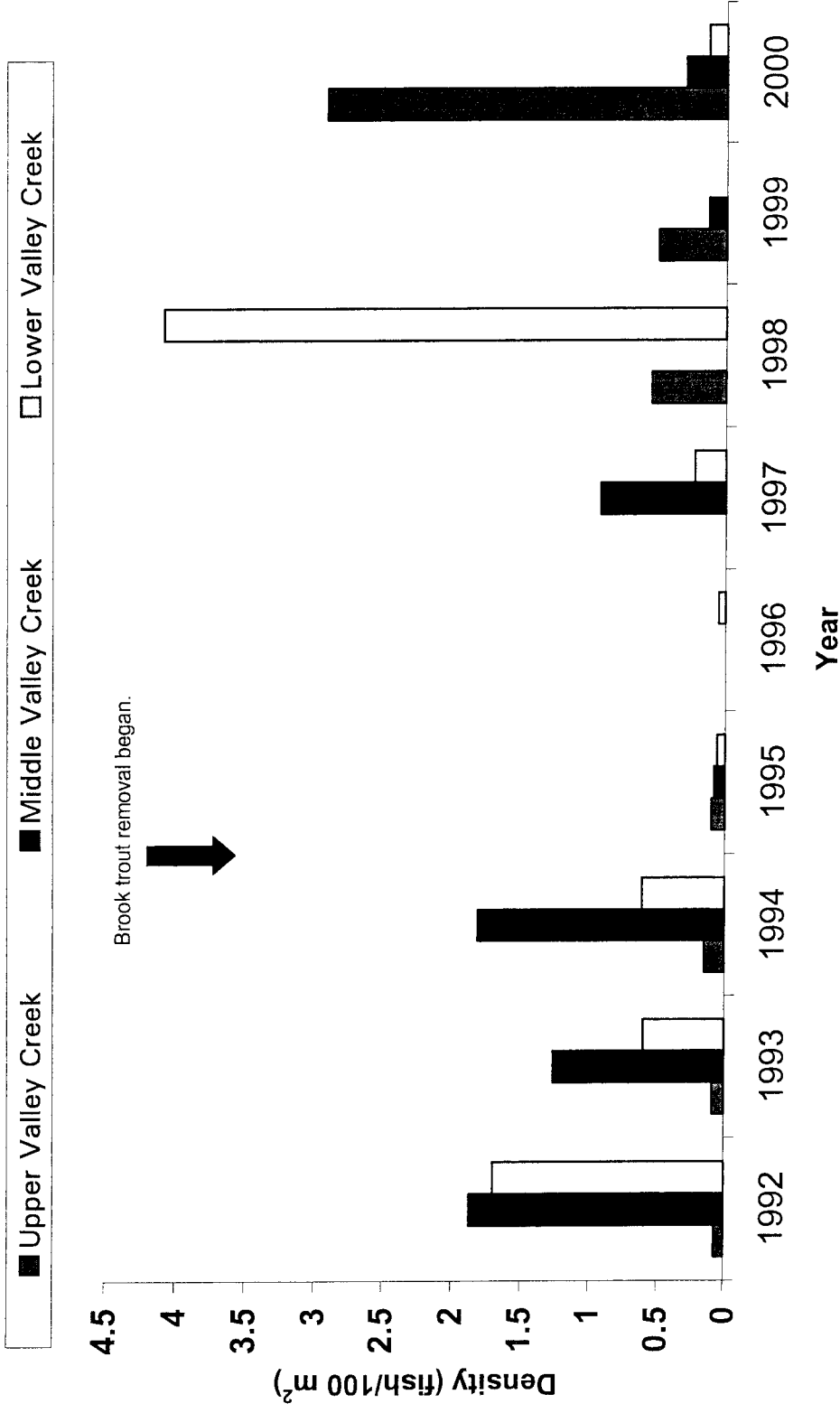


Figure 5. Population densities of bull trout, westslope cutthroat trout and steelhead in Valley Creek, 1992-2000 (data provided by Shoshone-Bannock Indian Tribes, Idaho Supplementation and General Parr Monitoring studies).

LITERATURE CITED

Liter, M., T. Curet and M. Larkin. 2000, in preparation. Regional fishery management investigations. Idaho Department of Fish and Game, Federal Aid in Fish Restoration, F-71-R-23, Job Performance Report, Boise.

2000 ANNUAL PERFORMANCE REPORT

State Of: Idaho

Program: Fisheries Management F-71-R-25

Project I: Surveys and Inventories

Subproject I-H: Salmon Region

Job: c⁴

Title: Rivers and Streams Investigations-
Lemhi River Monitoring Project

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

During the summer of 2000, we were directed by the Idaho Attorney General's Office and the National Marine Fisheries Service to monitor the lower Lemhi River to ensure that adequate water conditions existed for chinook salmon *Oncorhynchus tshawytscha* passage and rearing. The lower Lemhi River was surveyed five times for the presence of adult and juvenile chinook salmon over the course of the summer. No adult chinook salmon were observed in the lower Lemhi River during the study. However, 95 chinook salmon redds were observed in the upper Lemhi River during September, which suggests that adequate passage conditions existed in the lower river during some if not all of the study. Juvenile chinook salmon were observed sporadically in the lower river during the study.

Authors:

Blair Piippo
Fishery Technician

Arnie Brimmer
Regional Fishery Biologist

Tom Curet
Regional Fishery Biologist

Mike Larkin
Region Fishery Manager

INTRODUCTION

During the last several decades, the Lemhi River was occasionally dewatered below irrigation diversion L-6 and above the mouth (Figure 1). Dewatering typically occurs in low water years during peak irrigation periods. On April 30, 2000, the Lemhi River was dewatered within this reach. National Marine Fisheries Service (NMFS) determined the lower river dewatering situation must be addressed immediately and sufficiently enough to prevent any future dewatering. In response to the dewatering situation and a NMFS request, a Memorandum of Understanding (MOU) was signed between the Lemhi Irrigation District, Water District 74, Idaho Department of Water Resources (IDWR), Idaho Department of Fish and Game (IDFG), and the Model Watershed Project (MWP) to provide sufficient flow to allow for fish passage. The MOU provided a minimum of 10 cubic feet per second (cfs) from willing landowners, for stream flows below irrigation diversion L-6, to aid migration of chinook salmon and other fish during the irrigation season (Appendix A).

In a cooperative effort, IDFG, Shoshone-Bannock Tribe (SBT), Bureau of Land Management (BLM), U.S. Forest Service (USFS), Bureau of Reclamation (BOR), Lemhi Irrigation District (LID), IDWR, Lemhi Soil Conservation District (LSCD), MWP, and private landowners conducted an intensive monitoring program during the summer of 2000. The purpose of the monitoring was to identify measures that would influence survival of juvenile and adult chinook salmon within the Lemhi River and prevent the take of Endangered Species Act (ESA) listed species. Monitoring included water temperature, habitat, discharge, manmade and natural barriers, and chinook salmon movement.

Data were collected from the Lemhi River with emphasis on the reach between the mouth and irrigation diversion L-6 (0.0 to 7.8 RM). Data were accrued throughout the summer months beginning on July 12, 2000 and ending on September 15, 2000.

OBJECTIVES

The objectives of this monitoring study were to collect data that would direct efforts to improve survival of listed species in the Lemhi River, within the scope of the MOU.

1. Fish Movement: Document movement of adult and juvenile chinook salmon and other fish species in the middle and lower portions of the Lemhi River.
2. Temperatures: Record temperatures throughout the Lemhi River and portions of the Salmon River near the mouth of the Lemhi River to determine if conditions remained suitable for salmonid survival during a low water year.
3. Passage Barriers: Identify and immediately address areas where fish passage may have been obstructed and to prevent fish stranding in the Lemhi River.
4. Flows: Measure flows throughout the summer months to comply with the MOU's minimum flow agreement and to establish photo points at critical river locations at different flow regimes.

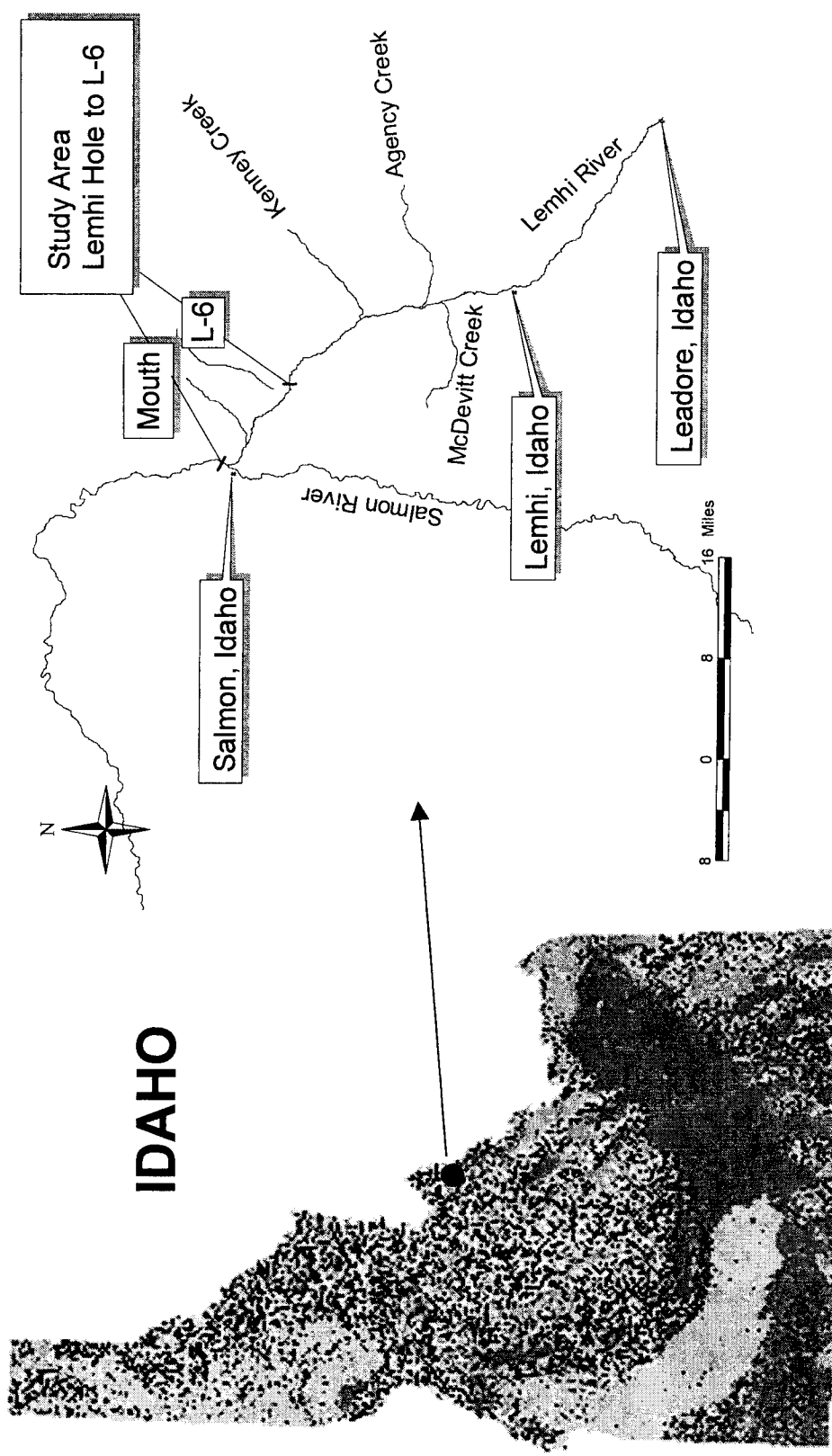


Figure 1. Map of study area.

AREA DESCRIPTION

The Lemhi watershed drains 1,290 square miles and includes the rugged 10,000 foot Bitterroot Range of the Beaverhead Mountains to the north and east and the Lemhi Range to the west. The Lemhi River originates near Gilmore Summit, Idaho, at an elevation of 7,200 feet and flows northwest through Lemhi Valley terminating at the confluence with the Salmon River near Salmon, Idaho (Figure 1).

The Lemhi River is a low gradient, spring-fed system that flows through fertile valley bottoms. The average daily flow of the Lemhi River for the past 50 years is 270 cfs (recorded near Lemhi, Idaho). Peak flow generally occurs in June (550 cfs to 2,100 cfs) while minimum flows occur in May and August (<100 cfs). The hydrology of the Lemhi River has been changed dramatically since the mid 1840s, beginning with intensive beaver trapping and beaver dam removal efforts and continuing today with extensive irrigation diversions and channel alterations.

A hydroelectric dam was operated near the mouth of the Lemhi River from 1909 to 1950. Interviews with several long time residents suggest that during spring runoff chinook salmon were able to migrate past the dam. However, under low flow conditions (during the summer) chinook salmon migration was impeded.

For more detailed information on the Lemhi River Watershed, see the Lemhi River Watershed Assessment, 1995.

The climate in the basin is as varied as its elevation (4,000 ft to 11,000 ft). Most of the precipitation occurs during the winter in the form of snow, and in the spring and fall as rain. Accumulations of six or more feet of snow can occur at higher elevations but snow accumulations at lower elevations vary (about nine inches/year).

Irrigation water from the Lemhi River is used primarily for alfalfa production for local ranches. Historically, over 80 irrigation ditches diverted water from the Lemhi River. Over the last several years, many of the ditches have been consolidated. All of the ditches have been screened to prevent fish loss.

In recent years substantial efforts have been made to improve habitat conditions on the Lemhi River. The Model Watershed Project (initiated in 1992) focuses on working cooperatively with landowners to improve fisheries habitat throughout the basin. To date, the MWP has completed 28 miles of fence (19 river miles) along Lemhi River. Private landowners, working through the MWP, with the assistance of state and federal agencies, have completed 40 projects on the Lemhi River.

METHODS

Juvenile Chinook Salmon Movement

A rotary screw trap was deployed on March 7, 2000 in the Lemhi River above the confluence with Hayden Creek (RM 30.6) (henceforth called Hayden Creek Trap). Hayden Creek Trap (HCT) has been operated by IDFG since 1994 for ongoing anadromous fish studies. A second rotary screw trap was deployed at North Saint Charles Street Bridge (river mile 0.4) on July 11, 2000. This location was selected because it provided optimal channel characteristics for trap operation, ease of access, and was at the lower end of the study area. Fish collected at this site were expected to represent fish movement through the lower Lemhi River. The traps were monitored daily to document fish numbers and species captured.

The juvenile fish traps used in this study provided several types of information. First, HCT was used to capture and PIT (Passive Integrated Transponder) tag juvenile chinook salmon to provide upper Lemhi River migration data. Second, North Saint Charles Street Bridge Trap (NST) was used to determine if juvenile chinook salmon PIT tagged at HCT were continuing their movement downstream towards the Salmon River. North Saint Charles Street Bridge Trap was also used to determine the fish community present in the lower Lemhi River (Figure 2).

Juvenile Chinook Salmon Rearing

Juvenile chinook salmon rear in the upper Lemhi River for up to two years. It was not known whether juvenile chinook salmon reared in the lower Lemhi River as well. To answer this question, selected sections of the lower Lemhi River (from its mouth to irrigation diversion L-6) were snorkeled on five occasions (7/17, 7/31, 8/8, 8/9, and 8/14/2000) during the summer (Figure 3). The purpose of the snorkel surveys was to document the presence or absence of juvenile chinook salmon. It should be noted that snorkeling conditions were not ideal throughout most of the study period due to poor water clarity.

Adult Chinook Salmon Movement

Lower Lemhi River was snorkeled on five occasions during the summer of 2000 (7/17, 7/31, 8/8, 8/9, and 8/14) to determine the presence or absence of adult chinook salmon (Figure 3). Further monitoring for the presence of adult chinook salmon was accomplished by walking the lower reach of Lemhi River. Incidental sightings by various agency personnel and members of the local community were also investigated.

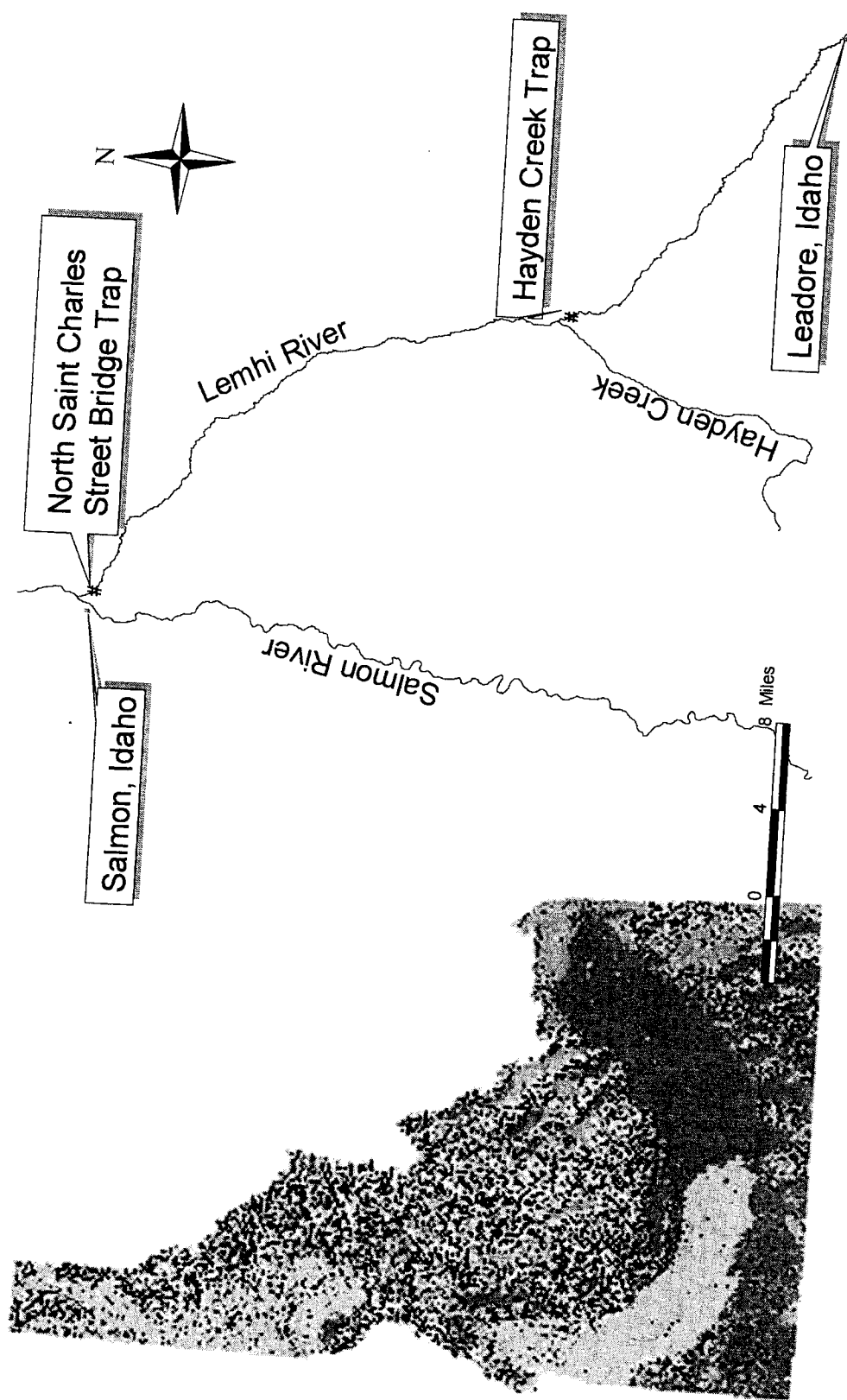


Figure 2. Trapping locations on the Lemhi River, Idaho.

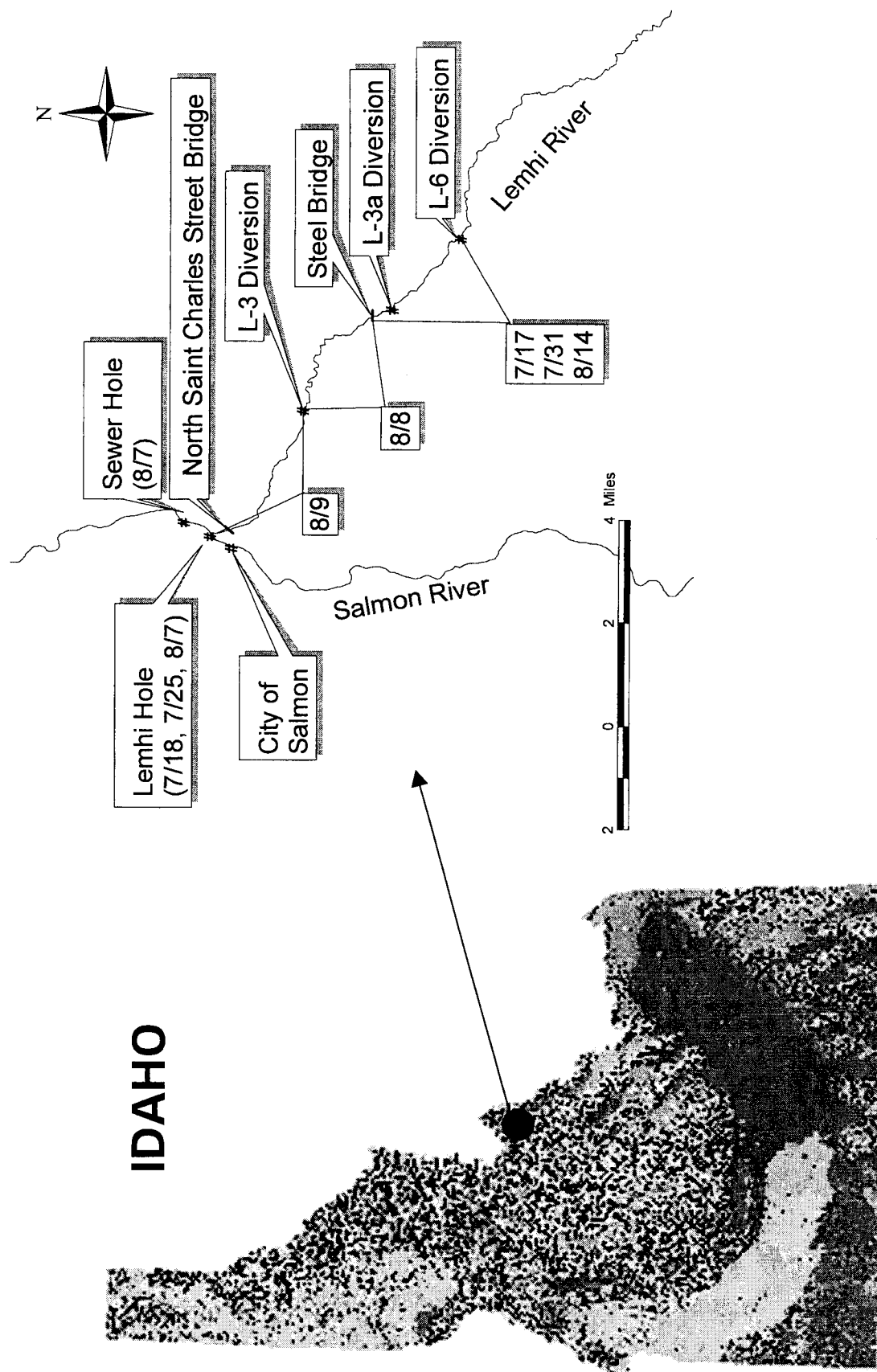


Figure 3. Dates and locations of snorkel surveys conducted on the Lemhi River, Idaho, during the summer of 2000.

The Lemhi Hole (where the Lemhi River flows into the Salmon River) was snorkeled on three occasions (July 18, July 25, and August 7, 2000) to determine the presence or absence of adult chinook salmon (Figure 3). The Sewer Hole (the next hole downstream of Lemhi Hole) was also snorkeled on August 7, 2000 to determine the presence or absence of adult chinook salmon. It was assumed the presence of adult chinook salmon in the Lemhi Hole was an indication of poor migration conditions in the lower Lemhi River. Conversely, the absence of adult chinook salmon would indicate acceptable migration conditions.

Water Temperature

Morning and evening temperatures were recorded with a hand held thermometer at irrigation diversion L-6 and at NST. Automatic electronic temperature recording devices (HOBOS and Stowaways) were used to record water temperatures at various Lemhi and Salmon River locations (Figure 4). Each unit was set to record every 2.5 hours. On two occasions, hand held thermometers were used to measure water temperatures at various lower Lemhi River locations, and at various irrigation return ditches (Figure 5).

At the beginning of this monitoring study, IDFG, MWP, and SBT personnel surveyed the lower Lemhi River to identify areas that had potential to become barriers to fish passage. This survey was completed via ground reconnaissance. Areas identified as possible barriers to fish passage were monitored throughout the summer by IDFG personnel and modified as necessary.

Passage Barriers

Flow

Flow in the lower Lemhi River from irrigation diversion L-6 to its confluence with the Salmon River was monitored daily to ensure that the minimum flow (10 cfs) agreement was maintained. A combination of hand-metered measurements and a United States Geological Service (USGS) gauging station (#13305310) were used to monitor flow conditions in the lower Lemhi River. The Lemhi River Water Master worked to ensure that the flow agreement was met by using a Swaffer Flow Meter and taking measurements at irrigation diversions L-1, L-3a, L-6, and at Barracks Lane. Photo points were established at critical areas such as irrigation diversion L-6 to give a visual reference as to how various flows appeared in the channel under various flow conditions.

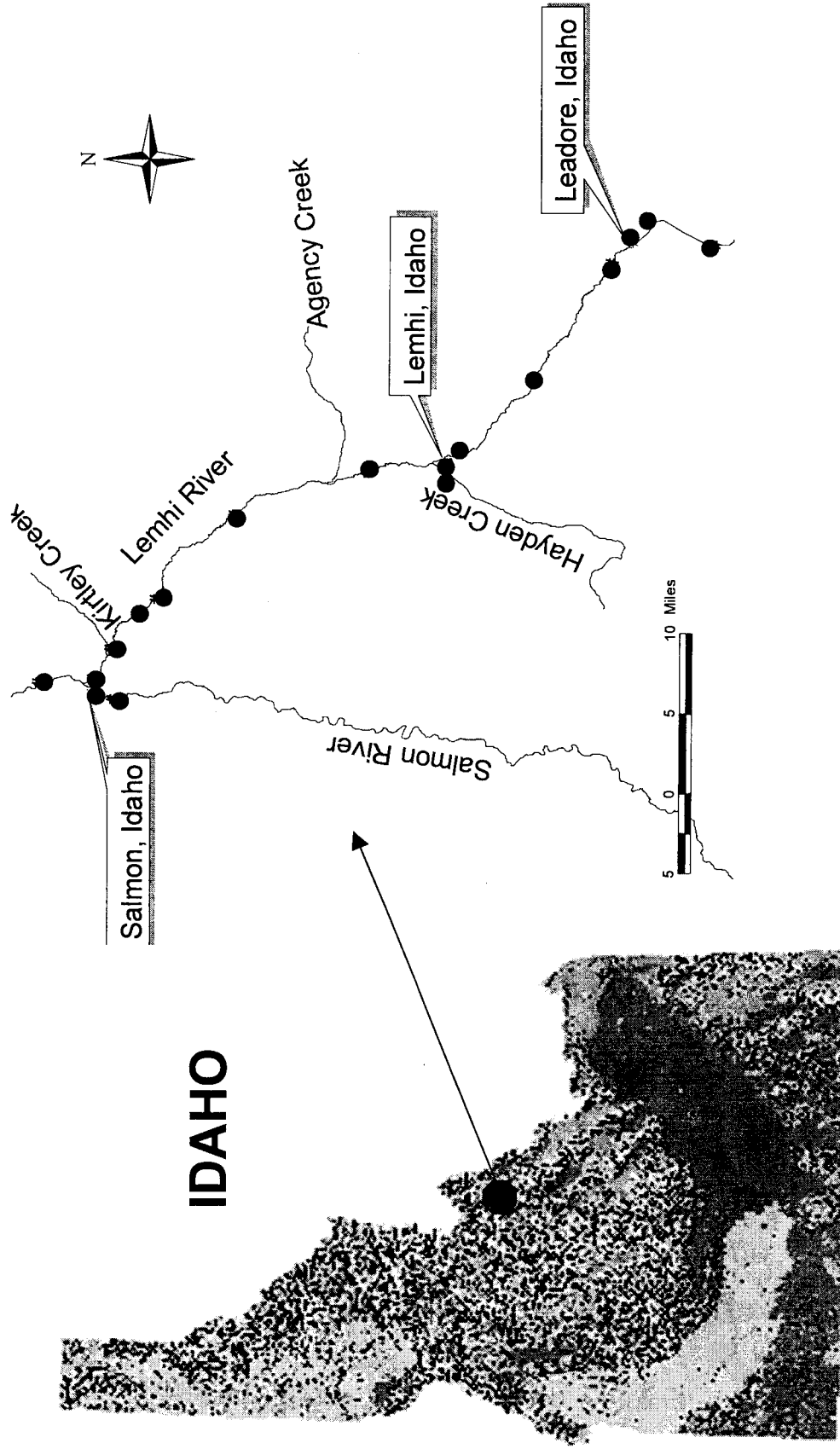


Figure 4. Locations (•) where automatic electronic recording devices measured water temperatures during the summer of 2000.

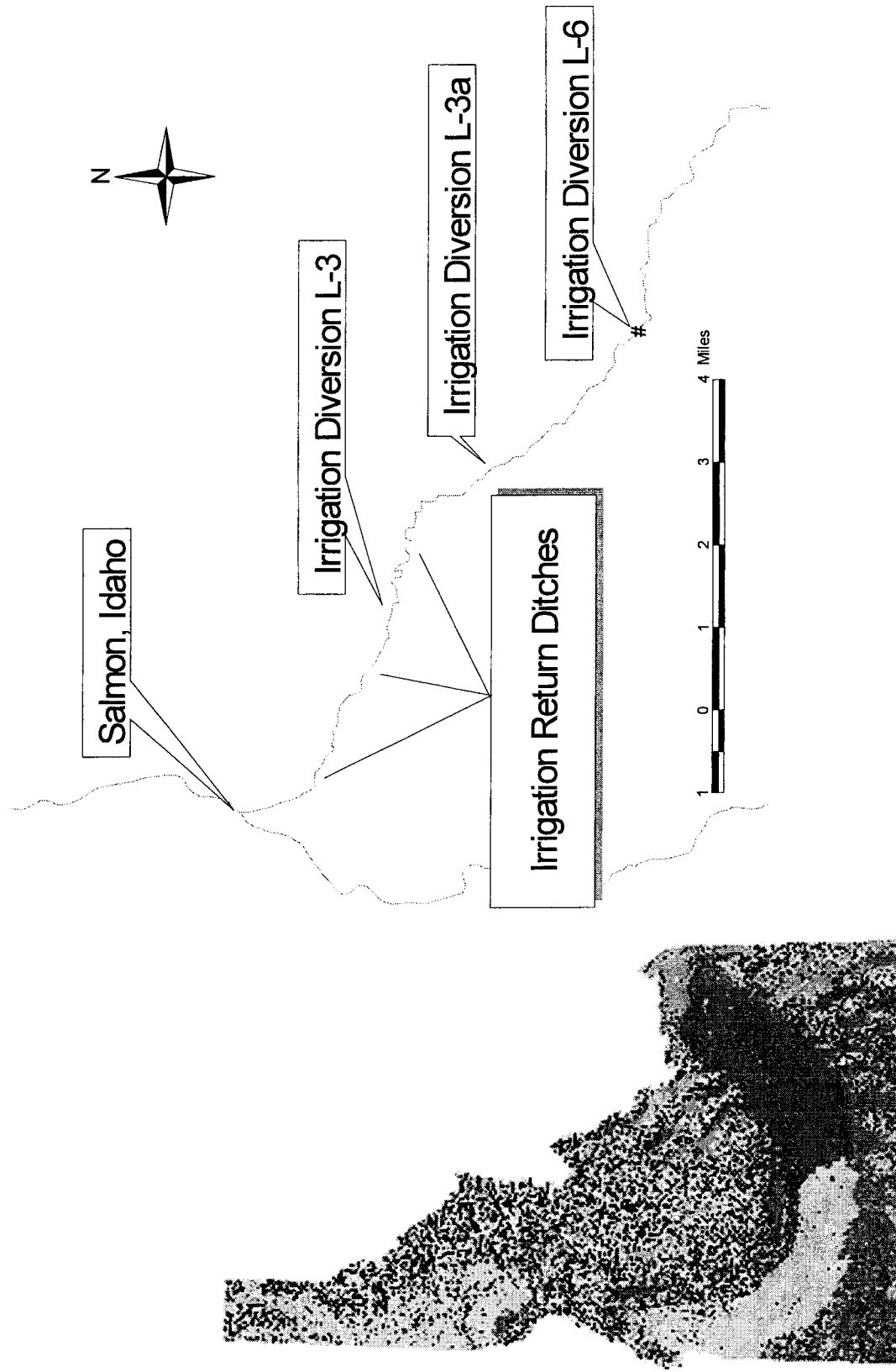


Figure 5. Locations (•) where hand-held thermometers were used to measure water temperatures during the summer of 2000.

RESULTS

Juvenile Chinook Salmon Movement

Hayden Creek Trap captured 74 juvenile chinook salmon from July 12 to September 15, 2000. Of these, 62 were PIT tagged and released. Of the remaining 12, five were recaptures and seven were released without being tagged. Other species captured included mountain whitefish, rainbow trout/steelhead, sucker, and dace (Table 1). For more information, contact the Model Watershed Program (208-756-6322).

North Saint Charles Street Bridge Trap captured nine juvenile chinook during the trapping period. Of these, two were recaptures from HCT. Other species captured included mountain whitefish, rainbow trout/steelhead, northern pikeminnow, sucker, chiselmouth, dace and redbside shiner (Table 1). For more information, contact the Model Watershed Program (208-756-6322).

Juvenile Chinook Salmon Rearing

On July 17, 2000, SBT personnel snorkeled from the steel bridge (below irrigation diversion L-3a) to irrigation diversion L-6. Twenty-four pools and ten runs were snorkeled. Redside shiner, dace, sculpin, sucker, rainbow trout/steelhead, and cutthroat trout were observed. Twenty-three juvenile chinook salmon were also observed (Table 2). The juveniles were seen in various pools and runs throughout the snorkel transect.

A second snorkel survey was conducted (on the same reach as mentioned above) by IDFG and SBT personnel on July 31, 2000. Twenty pools and five runs were snorkeled. A total of 36 juvenile chinook salmon were observed within this reach (Table 2). Redside shiner, dace, sculpin, suckers, whitefish, and rainbow trout/steelhead trout were also observed.

On August 8, 2000, IDFG personnel snorkeled the lower Lemhi River from irrigation diversion L-3 to irrigation diversion L-3a. Twenty-six pools and four runs were snorkeled. Five chinook salmon juveniles were observed (Table 2). Other species of fish observed were redbside shiner, dace, sculpin, sucker, mountain whitefish, and rainbow/steelhead trout.

The reach from old Lemhi Road Bridge to irrigation diversion L-3 was snorkeled on 8/9/2000. Idaho Department of Fish and Game personnel snorkeled a total of 19 pools and five runs. Twelve juvenile chinook were observed during the snorkel. Redside shiner, dace, sculpin, sucker, mountain whitefish, rainbow / steelhead trout, and one bull trout were also observed in the reach (Table 2).

On August 14, 2000, IDFG and SBT personnel snorkeled the reach from the Steel Bridge to irrigation diversion L-6. Eighteen juvenile chinook salmon were observed within this reach (Table 2). Other fish encountered were redbside shiners, dace, sculpin, suckers, whitefish, and rainbow trout/steelhead.

Lemhi Hole was snorkeled on the three separate occasions (July 18, July 25, and August 7) during the summer of 2000. No juvenile chinook salmon were observed during any of the three snorkel surveys. The Sewer Hole was also snorkeled on August 7, 2000. Again, no juvenile chinook salmon were observed. Other fish species observed included suckers, northern pikeminnow, and rainbow/steelhead trout. Snorkeling conditions were not ideal because of poor water clarity. Therefore, it is possible some fish were missed during the surveys.

Adult Chinook Salmon Movement

Idaho Department of Fish and Game personnel responded to a report of an adult chinook salmon in the lower Lemhi River. On July 26, 2000, a citizen reported a large fish in the vicinity of irrigation diversion L-1. The Lemhi River was searched from its mouth to irrigation diversion L-3a but no fish was found. The search was repeated the next day but again, no fish was found.

Although portions of lower Lemhi River were snorkeled on five separate occasions during the summer of 2000, no adult chinook salmon were observed. Lemhi Hole was snorkeled on July 18 and July 25 and again on August 7. No adults were observed on either of the three snorkel surveys. The Sewer Hole was also snorkeled on August 7, 2000. Again, no adult chinook salmon were observed. However, water clarity was poor below irrigation diversion L-6 and in the Salmon River during most of the summer, so it is possible some fish may have went undetected.

Water Temperature

July water temperatures at irrigation diversion L-6 ranged from an average minimum of about 14.1°C to an average maximum of about 21.0°C (Figure 6). Water temperatures during the first half of August were similar to those in July. During the last half of August, however, water temperatures began to decrease. In September, the average maximum water temperature was 16.4°C – the lowest of the season. Generally, during July and August, maximum water temperatures at irrigation diversion L-6 exceeded PACFISH standards for rearing/migrating salmonids (17.8°C) for a period each day. Fortunately, nighttime water temperatures were usually below PACFISH standards.

Water temperatures recorded at RM 7.0 mirrored those at irrigation diversion L-6 (Figure 7). Water temperatures were warmest in July and August but began to cool in September. PACFISH standards were repeatedly exceeded at RM 7.0.

Water temperatures recorded at RM 3.0 (Figure 8) and NST (Figure 9) were similar to those at irrigation diversion L-6. It should be noted that water temperatures reported for RM 3.0 are only for the period of July 28 to September 15, 2000.

Table 1. Fish species and numbers collected from Lemhi River, Idaho, by Hayden Creek Trap (HCT) and North Saint Charles Street Bridge Trap (NST) during the period July 12, 2000 through September 15, 2000.

| Fish species | NST | HCT |
|----------------------------|-----|-----|
| Chinook salmon (juveniles) | 9 | 74 |
| Rainbow/steelhead trout | 28 | 63 |
| Mountain whitefish | 62 | 12 |
| Sucker | 392 | 19 |
| Northern pikeminnow | 73 | 0 |
| Chiselmouth | 58 | 0 |
| Dace | 511 | 854 |
| Redside shiner | 135 | 0 |

Table 2. Total number of salmonids and non-salmonids observed during snorkel surveys on three reaches of the lower Lemhi River, Idaho, during the summer of 2000.

| Fish species | Number of fish observed | | | | |
|----------------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|
| | 7/17/00 ^a | 7/31/00 ^a | 8/08/00 ^b | 8/09/00 ^c | 8/14/00 ^a |
| Chinook salmon | 23 | 36 | 5 | 12 | 18 |
| Cutthroat trout | 3 | 6 | 0 | 0 | 4 |
| Rainbow/steelhead trout | 14 | 47 | 23 | 31 | 52 |
| Bull trout | 0 | 0 | 0 | 1 | 0 |
| Mountain whitefish | 0 | 3,929 | 2,437 | 560 | 2,458 |
| Non-salmonids ^d | 4,391 | 5,382 | 6,335 | 3,331 | 2,404 |

^a Reach = from steel bridge (below irrigation diversion L-3a) to irrigation diversion L-6.

^b Reach = from irrigation diversion L-3 to irrigation diversion L-3a.

^c Reach = from old Lemhi Road Bridge to irrigation diversion L-3.

^d Non-salmonids included sucker, dace, redside shiner, and northern pikeminnow.

Lemhi Hole was snorkeled on three separate occasions (July 18, July 25, and August 7) during the summer of 2000. No juvenile chinook salmon were observed during any of the three snorkel surveys. The Sewer Hole was also snorkeled on August 7, 2000. Again, no juvenile chinook salmon were observed. Other fish species observed included suckers, northern pikeminnow, and rainbow/steelhead trout. Snorkeling conditions were not ideal because of poor water clarity. Therefore, it is possible some fish were missed during the surveys.

Adult Chinook Salmon Movement

Idaho Department of Fish and Game personnel responded to a report of an adult chinook salmon in the lower Lemhi River. On July 26, 2000, a citizen reported a large fish in the vicinity of irrigation diversion L-1. The Lemhi River was searched from its mouth to irrigation diversion L-3a but no fish was found. The search was repeated the next day but again, no fish was found.

Although portions of lower Lemhi River were snorkeled on five separate occasions during the summer of 2000, no adult chinook salmon were observed. Lemhi Hole was snorkeled on July 18 and July 25 and again on August 7. No adults were observed on either of the three snorkel surveys. The Sewer Hole was also snorkeled on August 7, 2000. Again, no adult chinook salmon were observed. However, water clarity was poor below irrigation diversion L-6 and in the Salmon River during most of the summer, so it is possible some fish may have went undetected.

Water Temperature

July water temperatures at irrigation diversion L-6 ranged from an average minimum of about 14.1°C to an average maximum of about 21°C (Figure 6). Water temperatures during the first half of August were similar to those in July. During the last half of August however, water temperatures began to decrease. In September, the average maximum water temperature was 16.4°C – the lowest of the season. Generally, during July and August, maximum water temperatures at irrigation diversion L-6 exceeded PACFISH standards for rearing/migrating salmonids (17.8°C) for a period each day. Fortunately, nighttime water temperatures were usually below PACFISH standards.

Water temperatures recorded at RM 7.0 mirrored those at irrigation diversion L-6 (Figure 7). Water temperatures were warmest in July and August but began to cool in September. PACFISH standards were repeatedly exceeded at RM 7.0.

Water temperatures recorded at RM 3.0 (Figure 8) and NST (Figure 9) were similar to those at irrigation diversion L-6. It should be noted that water temperatures reported for RM 3.0 are only for the period of July 28 to September 15, 2000.

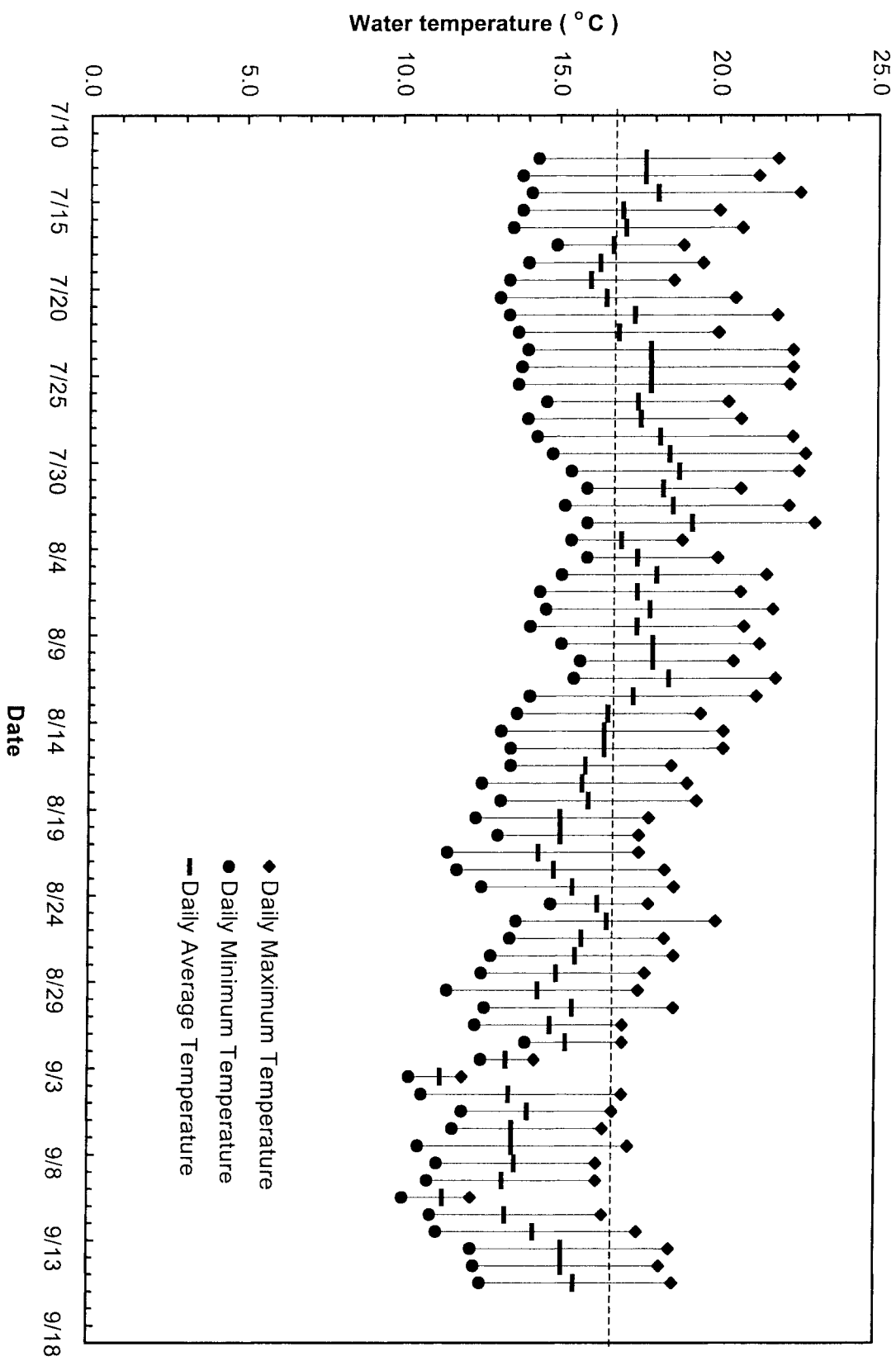


Figure 6. Maximum, daily mean, and minimum Lemhi River water temperatures recorded at irrigation diversion L – 6 during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (- -) are included.

Water temperature data recorded from several locations on the lower Lemhi River and at several irrigation return ditches showed that the return ditches were about 2 °C to 4°C cooler than the Lemhi River (Figure 10). The return flow from these ditches may provide an important thermal refuge for fish rearing in the lower Lemhi River. For example, on August 9, 2000, a snorkel survey was conducted on the Lemhi River from the old Lemhi Road Bridge to irrigation diversion L-3. Less than one-half mile upstream from the bridge, an irrigation return ditch discharges into the Lemhi River. Water temperatures were measured at both the Lemhi River and the irrigation return ditch. The water temperature of the Lemhi River was 21°C while the water temperature of the return ditch was 17°C. Five juvenile chinook salmon were observed in the area where the return ditch entered the river.

The Salmon River and the lower Lemhi River water temperatures differed during the first part of the study, but not the last. From July 12 to August 12, 2000, the Salmon River was typically 1 to 2°C warmer than the lower Lemhi River. However, from August 13 to September 15, 2000, the Salmon and lower Lemhi Rivers had similar water temperatures (Figure 11). Analysis of the water temperature data obtained from the two rivers showed that on numerous occasions PACFISH water temperature standards were exceeded.

Passage Barriers

Eleven sites in the lower Lemhi River (irrigation diversion L-6 to the mouth) were identified as possible barriers to fish passage during the study. Temporary coffer dams were installed at two of the more critical areas in an attempt to improve fish passage conditions. The coffer dams consisted of a series of water-filled bladders that were linked together and situated on the river bed. The orientation of the coffer dams varied between the two locations but the purpose was the same: to concentrate river flow to enhance fish passage conditions (Figure 12).

Flow

Generally, the flow target (10 cfs) agreed to in the MOU was met each day (Figure 13). Several malfunctions occurred at irrigation diversion L-6 that altered river flow but these periods were brief. Initially, control of river flow at irrigation diversion L-6 was difficult due to fluctuations in upstream flow. However, after modifications to the diversion dam (at L-6), management of river flow became more reliable.

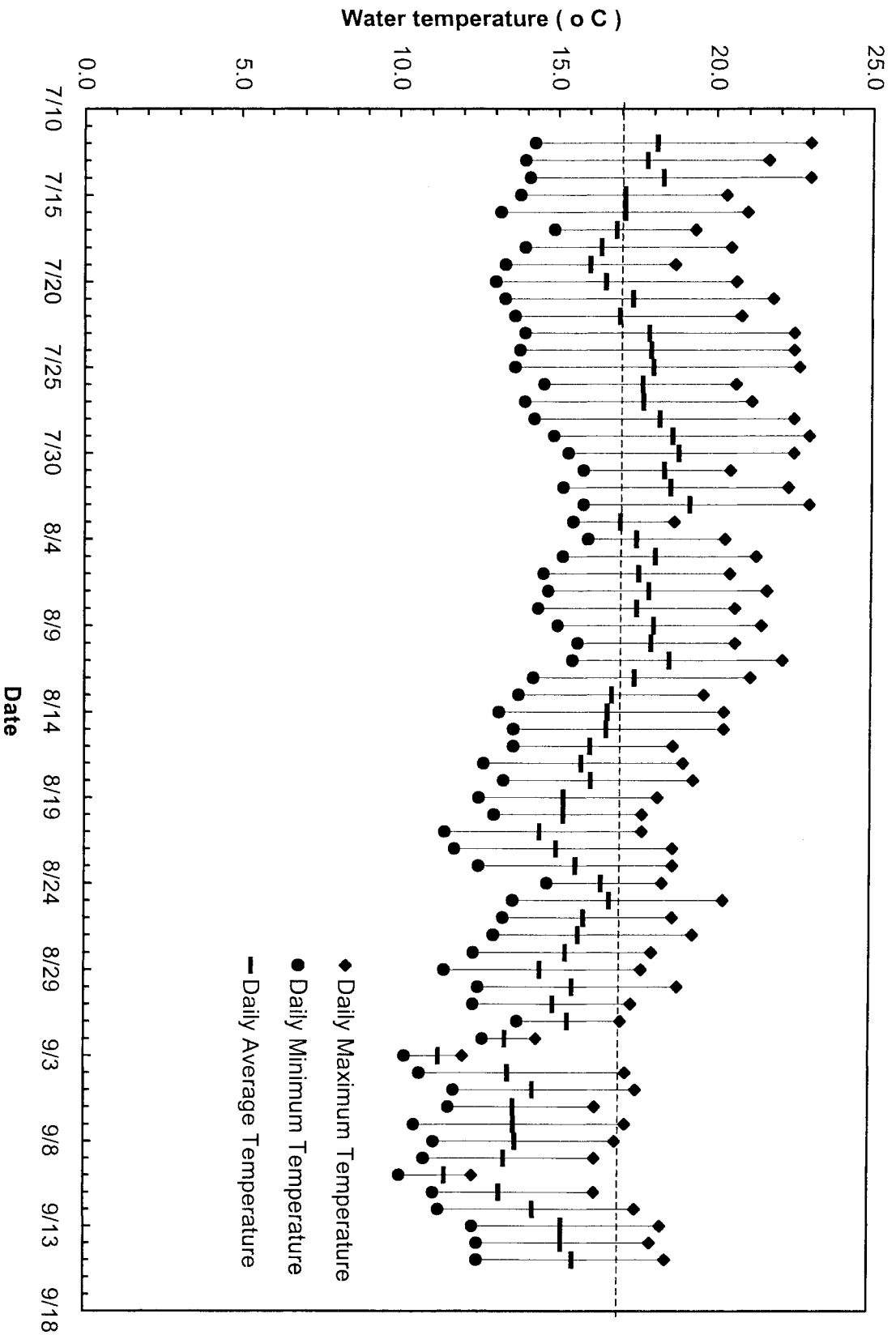


Figure 7. Maximum, daily mean, and minimum Lemhi River water temperatures recorded at River Mile 7.0 during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (---) are included.

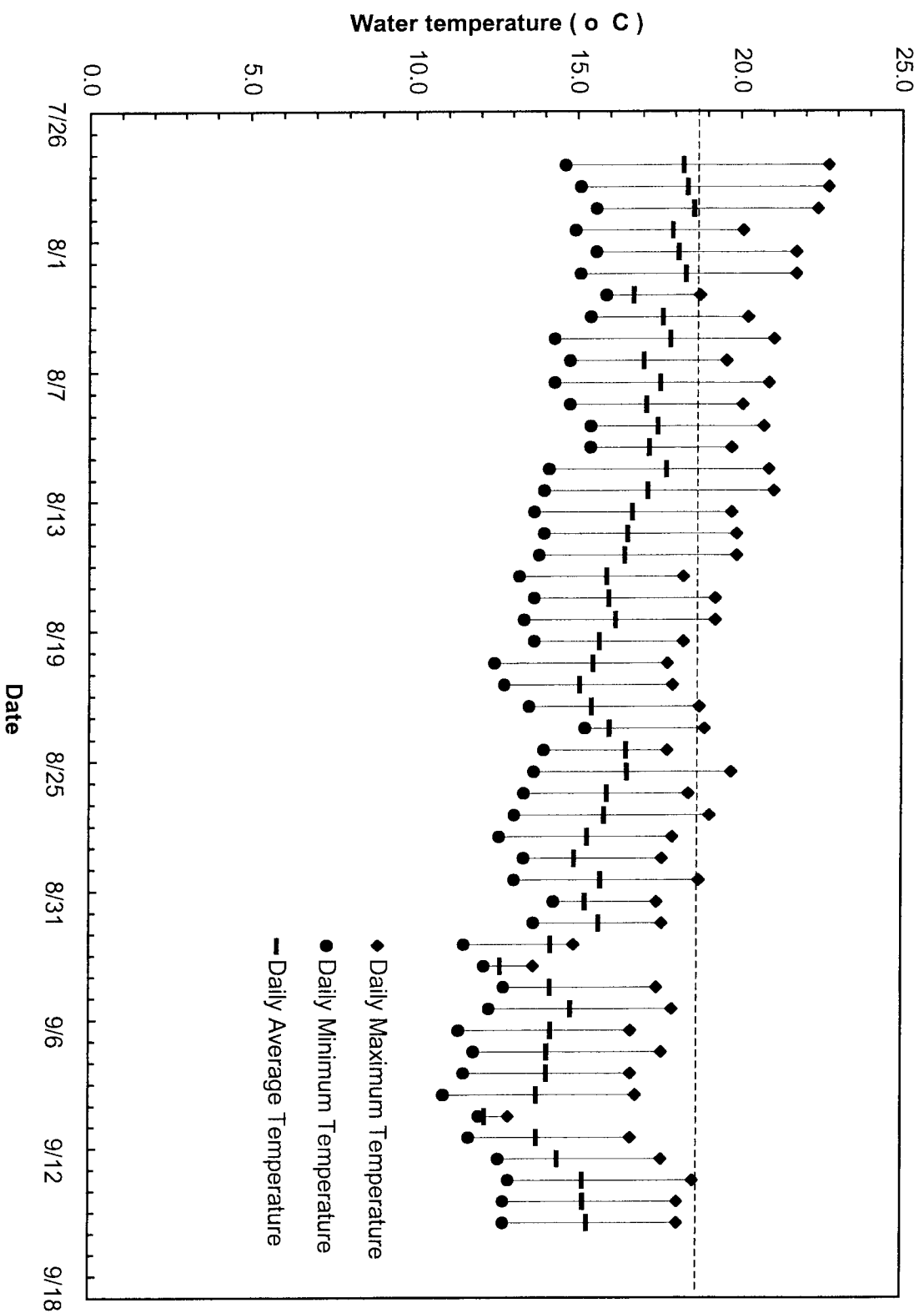


Figure 8.

Maximum, daily mean, and minimum Lemhi River water temperatures recorded at River Mile 3.0 during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (—) are included.

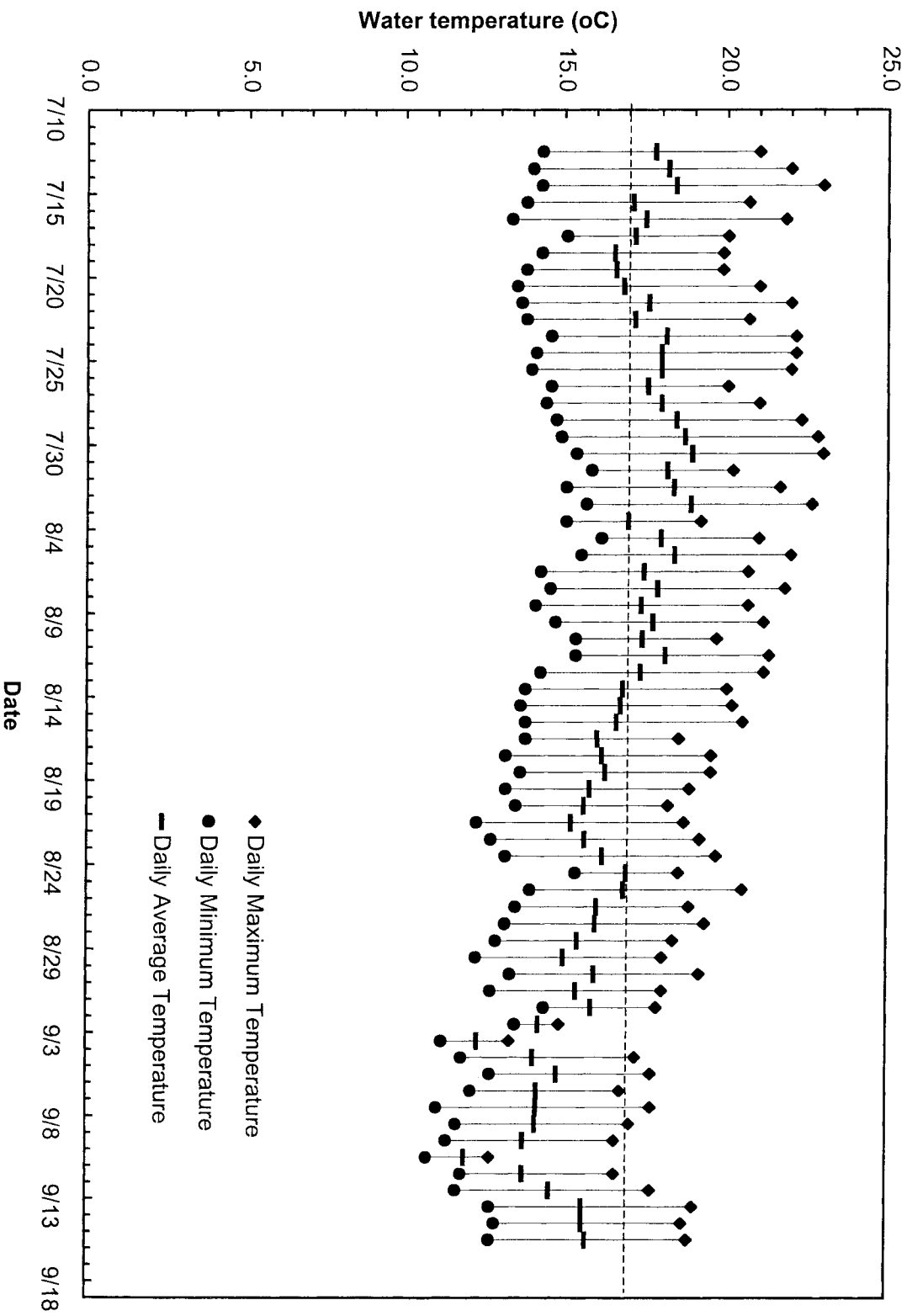


Figure 9. Maximum, daily mean, and minimum Lemhi River water temperatures recorded at North Saint Charles Street Bridge Trap during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (---) are included.

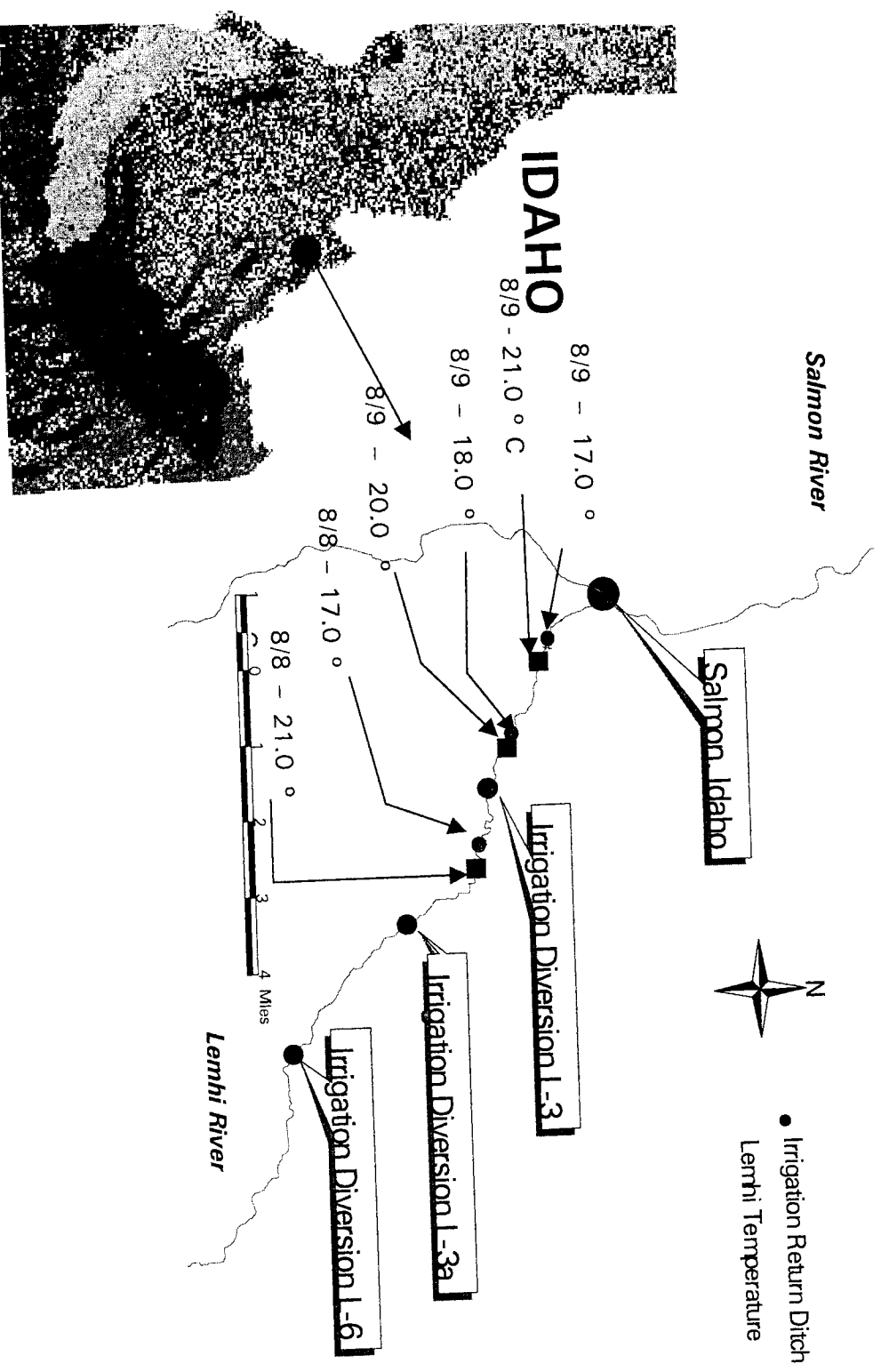


Figure 10. Comparison of water temperatures between irrigation return ditches and the lower Lemhi River during the summer of 2000.

Figure 11. Mean daily water temperature measured at the Salmon and lower Lemhi Rivers near Salmon, Idaho, during the summer of 2000. PACFISH maximum water temperature standards for migrating and rearing salmonids (—) are included.

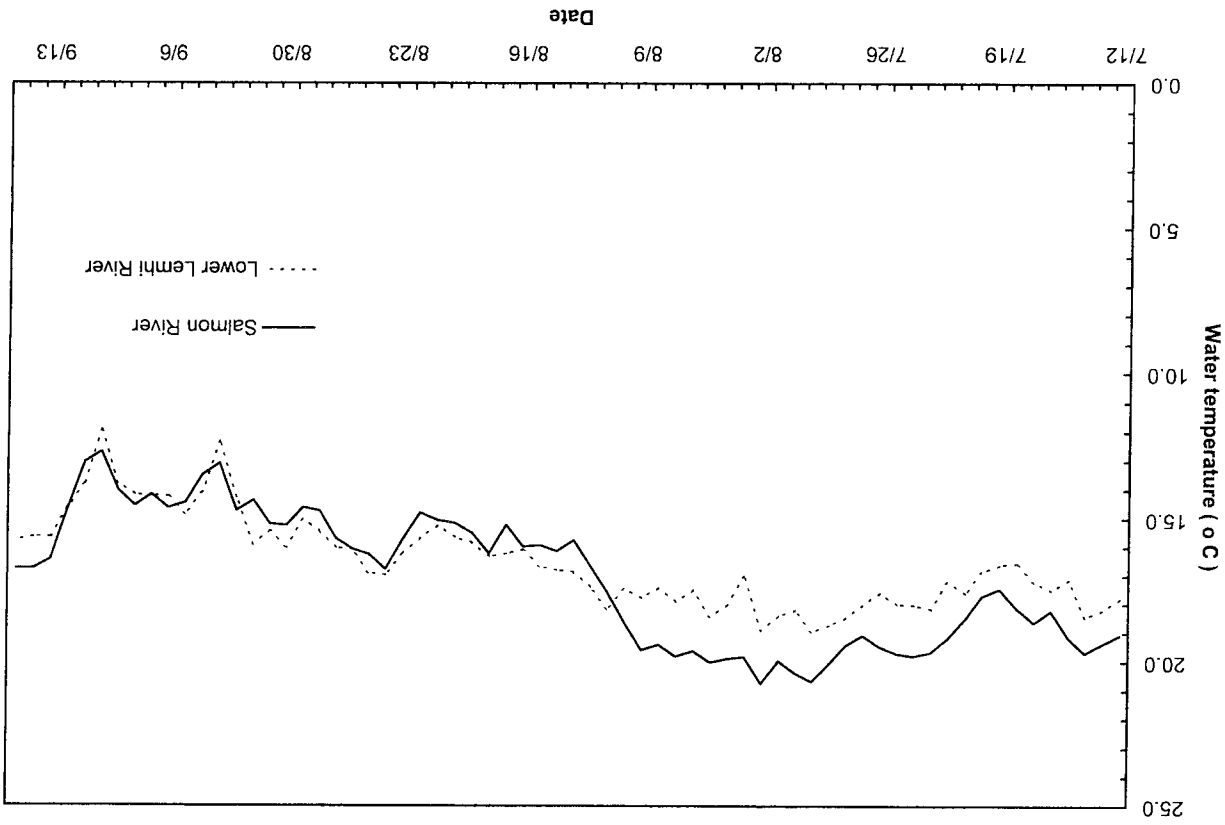
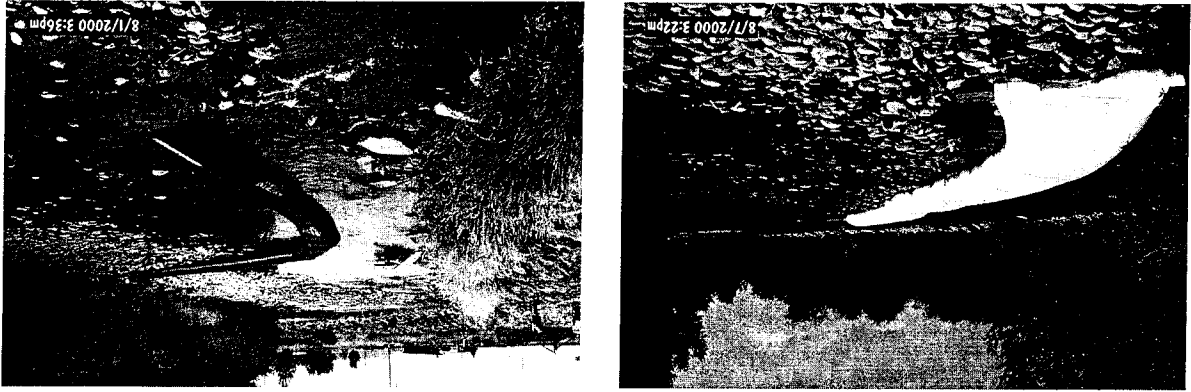


Figure 12. Temporary coffer dams installed at two locations on the lower Lemhi River, Idaho, during the summer of 2000 for the purpose of enhancing fish passage conditions.



DISCUSSION

Juvenile Chinook Salmon Movement

Data collected at HCT showed that little movement of juvenile chinook salmon occurred in the upper Lemhi River during the summer months. Only 74 juvenile chinook salmon were captured at HCT from July 12 to September 15, 2000 – typical for that time of year (T. Curet, IDFG, Salmon, Idaho, personal communication). Data collected from NST also showed that little juvenile chinook salmon movement occurred in the lower Lemhi River during the period of July 12 to September 15, 2000. Only nine juvenile chinook salmon were collected during the study period at NST. The results of this study showed that on many occasions the water temperature in the lower Lemhi River exceeded PACFISH standards. However, it is not known to what degree it impacted chinook salmon movement since no historical data exists for comparison.

Juvenile Chinook Salmon Rearing

Juvenile chinook salmon were observed in all of the snorkel surveys conducted during this study. These results suggest that juvenile chinook salmon rear (at least to some degree) in the lower Lemhi River, even under poor water conditions. However, what is not known is the potential of lower Lemhi River to rear juvenile chinook salmon under good water conditions.

Adult Chinook Salmon Movement

Although no adult chinook salmon were observed in the lower Lemhi River during the study, it is speculated that the majority of the adult chinook salmon had already migrated through the lower Lemhi River prior to dewatering. Several pieces of information support this supposition. First, no adult chinook salmon were observed in the lower Lemhi River or in the Salmon River (near the mouth of the Lemhi River) during the study. Second, no adult chinook salmon carcasses were found in the lower Lemhi River during the study. Third, adult chinook salmon were reported being in the upper Lemhi River during June. Finally, historical adult chinook salmon arrival data suggests that during low flow years, adult chinook salmon return to the upper Lemhi River earlier than during normal flow years (Bjornn 1978.)

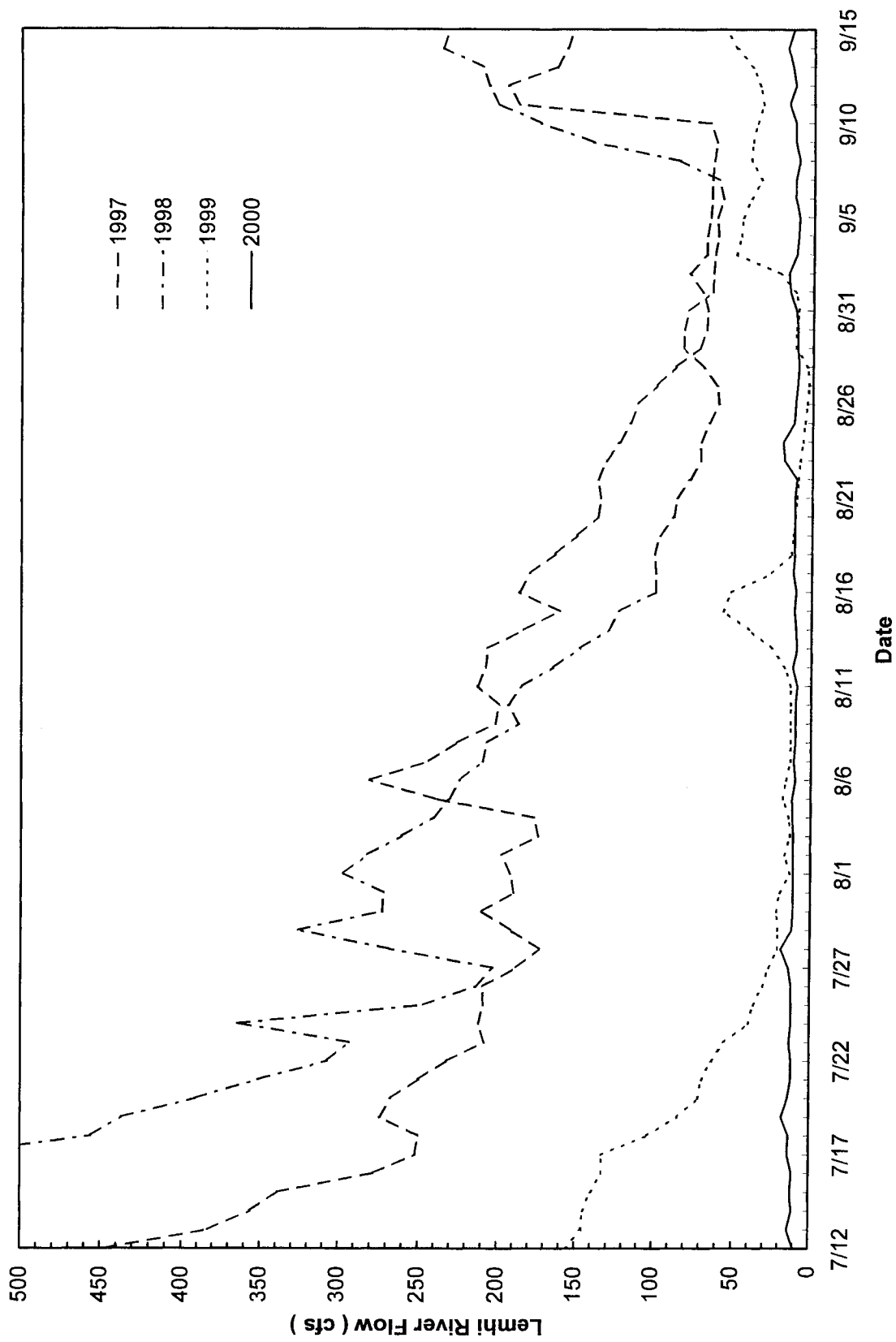


Figure 13. Lower Lemhi River (Idaho) flow measured near irrigation diversion L-5 (USGS gauge #13305310) for the years of 1997, 1998, 1999, and 2000.

Water Temperature

Analysis of water temperatures recorded by electronic recording devices showed that there was little warming of the lower Lemhi River between irrigation diversion L-6 and the mouth (Figures 6-9). At the beginning of this study, it was thought that water temperatures would be significantly cooler at irrigation diversion L-6 than in the lower Lemhi River, but that was not the case. Irrigation return ditches were noted as sources of cooler water (Figure 10). These return ditches would not necessarily decrease the water temperature in the lower Lemhi River but rather keep the temperature constant by natural processes during the general downstream warming. Additionally, it is likely that ground recharge (springs) played an important role in stabilizing lower Lemhi River water temperatures.

Passage Barrier

Potential barriers to fish passage were monitored weekly during the study. Eleven sites were identified as potential barriers to fish passage. Of these eleven sites, two were considered to be barriers to fish passage. Temporary coffer dams were installed at these two sites to improve fish passage conditions (Figure 12). The coffer dams improved passage conditions by concentrating available river flow to a centralized location.

All diversions were observed at some time throughout the summer. Although there were areas of concern, fish movement did not appear to be inhibited.

Flow

At the beginning of the summer, irrigators in the vicinity of the lower Lemhi River agreed to maintain 10 cfs of flow at irrigation diversion L-6 to prevent dewatering of the lower river. Flows were maintained at the agreed levels throughout the summer (Figure 12). There were several malfunctions at irrigation diversion L-6 but down time was brief. The malfunctions experienced at irrigation diversion L-6 actually enhanced downstream conditions by allowing more water to stay in the river.

Other Comments

Physical characteristics of the Lemhi River differ from the headwaters to the mouth. The upper portion of the Lemhi River from Lemhi to Leadore is highly vegetated, has a low gradient, has a high sinuosity index, and contains deep holes and appropriate sized chinook salmon spawning gravel. Consequently, the majority of chinook salmon spawning activity occurs in the upper river. Conversely, the substrate of the lower Lemhi River is dominated by cobblestone that is too large to be utilized by spawning chinook salmon. The differences in substrate size between the upper and lower river is due to the extensive channelization that has occurred in the lower reach of the river.

Pool distribution varies within the lower Lemhi River. Sixty-nine pools exist in the reach between irrigation diversion L-6 and the Old Lemhi Road Bridge (11.5 pools/river mile). The remaining 1.5 river miles (from Old Lemhi Road Bridge to the mouth of the Lemhi River) are somewhat channelized and lack good pool distribution (Castro 1999).

Approximately 25% of the Lemhi River has been mechanically altered over the last 60 years. The length of the Lemhi River from Hayden Creek to the mouth has decreased by 20%. With a history of recurring in-stream alterations, the Lemhi River has remained in a state of geomorphic transition. The Lemhi River has not had time to stabilize after each of these events before the next "disturbance" occurs. Gravel complexes in the lower Lemhi River are unstable and shift with each high water event. Channelization activities of the 1950s through the 1970s have caused the channel to incise because of direct deepening of the channel. Channelization has also caused an increase in stream gradient due to a reduction in sinuosity. This has resulted in headcuts migrating upstream, recruiting large quantities of bed and bank material (Castro 1999).

Width to depth ratios range from 19 to 27, much higher than the historic estimate of 12. These numbers indicate that bed load generated due to bank failure or gravel bar mobilization will not be transported far. This reinforces the notion that straightening the Lemhi River, or any other practices that mobilize large slugs of gravel, will change the channel significantly at the next available deposition site (Castro 1999).

ACKNOWLEDGEMENTS

The data collection and compilation of this report could not have been completed without the assistance of many people. A well deserved thank you is extended to Idaho Department of Fish and Game, Model Watershed Project, United States Forest Service, Bureau of Land Management, Bureau of Reclamation, Lemhi Soil Conservation District, the Lemhi Water Master, Shoshone-Bannock Tribe, Lemhi Irrigation District, and Idaho Department of Water Resources. A special thank you is extended to landowners R. J. Smith, Don Olson, Paul Fischer, and Tom Richards for their willingness to allow access to the lower Lemhi River and their desire to play a vital role in chinook salmon recovery. Finally, Blair Piippo deserves a special thank you for collecting most of the data and for organizing this report.

LITERATURE CITED

- Bjornn, T.C. 1978. Survival, production, and yield of trout and chinook salmon in the Lemhi River, Idaho. Final completion report, salmon and steelhead investigations, Idaho Department of Fish and Game, Boise. 56 pp.
- Castro, J., and R. Simpson. 1999. Summary of field work: Lemhi and East Fork of the Salmon River. USDA-NRCS, salmon habitat recovery team.

Appendix A.

**MEMORANDUM OF UNDERSTANDING BETWEEN
LEMHI IRRIGATION DISTRICT, MODEL WATERSHED PROJECT,
WATER DISTRICT 74, IDAHO DEPARTMENT OF WATER RESOURCES,
AND IDAHO DEPARTMENT OF FISH AND GAME**

WHEREAS, Idaho's Model Watershed Project was established in 1992 as part of the regional effort to rebuild Columbia River Basin salmon runs and includes the Lemhi River, Pahsimeroi River and East Fork of the Salmon River watersheds; WHEREAS, the Model Watershed Project's objective is to maintain, enhance and restore anadromous and resident fish habitat, while achieving a balance between resource protection and resource use on a watershed management basis; AND WHEREAS, the signatories to this Memorandum of Understanding ("MOU") desire to implement the Model Watershed Project's objective in the lower Lemhi River by working with water users to address potential low flow periods and thus facilitate migration of listed salmon and steelhead of all life stages;

NOW THEREFORE, the signatories to this MOU agree as follows:

(1) In addition to the approximately 35 cfs of natural river flows that is expected from runoff during June 2000, the water users of Water District 74 will voluntarily bypass water that they would otherwise be entitled to divert, in order to provide the following flows during the year 2000 irrigation season in the lower Lemhi River, from the L6 diversion downstream to the River's mouth: (a) 35 cfs for a fish flush, as called for by Model Watershed Project and Idaho Department of Fish and Game, to aid upstream passage of adult salmon to spawning grounds during July through mid-September; and (b) 10 cfs of in-channel and bypass flows from willing landowners (included within, and not in addition to, the 35 cfs in June and any fish flushes in July through mid-September) to aid out-migration of juvenile salmon and other listed juvenile fish throughout the irrigation season;

(2) Model Watershed Project and Idaho Department of Fish and Game will coordinate to accomplish the following tasks during the year 2000 irrigation season: (a) monitor adult Chinook salmon in the Salmon River near the mouth of and/or in the Lemhi River in order to determine when it is necessary to call for fish flushes during July through mid-September to facilitate upstream migration to spawning areas; (b) monitor out-migration of juvenile salmon and other listed juvenile fish near Hayden Creek and near the mouth of the Lemhi River in order to further understand when fish migration occurs; (c) submit weekly status reports to the signatories of this MOU and to the Boise Office of the National Marine Fisheries Service; and (d) obtain funds to accomplish these tasks;

(3) Idaho Department of Water Resources and Water District 74 will coordinate to accomplish the following tasks during the year 2000 irrigation season: (a) administer water diversions from the lower Lemhi River consistent with this agreement; and (b) process applications for well(s) and water transfers;

(4) The signatories to this MOU will investigate the following options, including any necessary legislation, for a longer-term solution for achieving flows in the lower Lemhi River: (a) transferring, as needed, up to 13 cfs from the Salmon River by pumping water into the L-6 ditch of the Lemhi irrigation system; (b) drilling wells to provide up to 5 cfs at the L-6 diversion on the Lemhi River; (c) converting flood irrigation systems of willing landowners below L6 to sprinkler systems and dedicating water saved to the lower Lemhi River; and (d) converting up to 17 cfs of diversionary rights to augment flows in the lower Lemhi River.

| | | | |
|---------------------------|-------------|-------------------------------------|-------------|
| Lemhi Irrigation District | <i>date</i> | Idaho Department of Water Resources | <i>date</i> |
| Model Watershed Project | <i>date</i> | Idaho Department of Fish and Game | <i>date</i> |
| Water District 74 | <i>date</i> | | |

2000 ANNUAL PERFORMANCE REPORT

State of: Idaho

Program: Fishery Management F-71-R-24

Project II: Technical Guidance

Subproject II-H: Salmon Region

Contract Period: July 1, 2000 to June 30, 2001

ABSTRACT

During 2000, project staff provided technical assistance to all requesting state and federal agencies. We submitted comments to agencies and private entities concerning outfitter/guide permit reissuance proposals, stream habitat through private lands, lake dock expansions, stream alterations, applications for installation of instream structures, bank stabilization, new reservoir storage site investigations, applications for irrigation diversions, applications for hot springs developments, requests for information on annual grant development programs, permits for discharging natural materials into streams, consultations concerning Endangered Species Act (ESA) issues, permits for dam removal, applications for borehole drilling, bridge construction, applications for stream restoration projects, proposals to place fill material into wetlands for irrigation system projects, and water right applications. We also conducted on-site inspections of proposed, on going and completed projects.

Idaho Department of Fish and Game personnel participated in angler informational meetings, school presentations, multi-agency and private landowner collaborative groups, and the 1-800-ASK-FISH program. Of the estimated 45,000 anglers that fish in the Salmon region, approximately 90% live outside the area. Because these anglers are not familiar with our waters, we respond to over 2,500 requests for basic information on fishing opportunities, techniques, regulations and area specifics.

Authors:

Mike Larkin
Regional Fishery Manager

Tom Curet
Regional Fishery Biologist

Arnie Brimmer
Regional Fishery Biologist

Rebecca M. Andersen
Regional Fishery Technician

OBJECTIVES

1. Assist the Idaho Department of Water Resources, the Idaho Department of Lands, the US Army Corps of Engineers and other state, federal, local and private entities in evaluating the effects of habitat manipulation on fish and fish habitat.
2. Recommend procedures that minimize adverse effects on aquatic habitat and fish caused by stream course alterations, and when possible work with all entities to restore functional river systems.
3. Provide information on all aspects of fisheries and aquatic habitat as requested.

METHODS

We responded to most requests for data, expertise, and recommendations from individuals, government agencies, and corporations. Project staff attended meetings, conducted field inspections, and generated responses as appropriate.

RESULTS

During 2000, we responded via letters, e-mail, field inspections, meetings, and reports to requests for technical assistance or comments on water and fishery-related matters (Table 1).

Table 1. Responses to requests for technical assistance or comments on water and fishery-related matters.

| Agency | Number of Requests |
|---|--------------------|
| US Army Corps of Engineers | 17 |
| Idaho Department of Water Resources | 42 |
| Idaho Department of Lands | 2 |
| USDA Forest Service | 5 |
| Idaho Division of Environmental Quality | 2 |
| US Fish and Wildlife Service | 5 |
| Aquatic Resources Enhancement | 1 |
| Federal Energy Regulatory Commission | 2 |
| Shoshone-Bannock Indian Tribe | 1 |
| National Marine Fisheries Service | 5 |
| US Bureau of Reclamation | 1 |
| Private and Miscellaneous | 2 |
| Idaho Outfitters and Guides Licensing Board | 1 |

Project personnel usually contacted agencies and private landowners by telephone. Commonly, we responded to stream alteration proposals by meeting with the applicant on-site, determining the nature of the situation, and sending written or verbal comments to the appropriate agency. Due to the remoteness of the Salmon Region, we were often the only agency representatives available to conduct on-site inspections.

We responded to numerous inquiries from the public (via telephone, letter and in person) about when, where, and how to participate in regional fisheries, ranging from steelhead angling to alpine lake fishing.

We reported weekly steelhead fishing results on the local radio station and in area newspapers throughout the season.

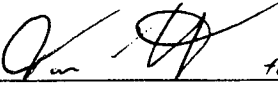
Fisheries staff helped private landowners form a collaborative group to deal with natural resource issues in Custer County. The Custer County Group was successful in obtaining an additional \$325,000 from Bonneville Power Administration for fishery habitat improvement projects.

Because the Salmon Region has no full-time Information and Education personnel, we respond to numerous requests by local schools for fish and wildlife related presentations. During 2000, Salmon Region fisheries personnel gave 18 presentations to approximately 250 students in five different schools.

RECOMMENDATIONS

1. Technical guidance on issues involving fishery resources in the Salmon Region should be continued to assist in maintaining fishery resources in the region.
2. Because of the number of requests for technical guidance and the potential funding for improving fish resources in the Salmon Region, consideration should be given to adding staff to administer habitat issues.

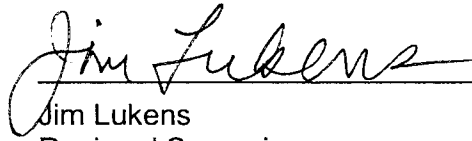
Submitted by:



for M.L.

Mike Larkin
Regional Fishery Manager

Approved by:



Jim Lukens
Regional Supervisor

Arnie Brimmer
Regional Fishery Biologist

Tom Curet
Regional Fishery Biologist

Rebecca M. Andersen
Regional Fishery Technician

Blair Piippo
Fishery Technician